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DETERMINATION OF THE INDIGENOUS MICROFLORA
OF MEN IN CONTROLLED ENVIRONMENTS



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REPUBLIC AVIATION DIVISION FAIRCHILD HILLER CORPORATION

APRIL 1966

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PHYLLIS E. RIELY IONNA GEIB DIANE SHORENSTEIN

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FOREWORD

This is the final report of a study conducted both at the Aerospace Medical Research Laboratories, Wright-Patterson Air Force Base, and in the Life Sciences Division of the Paul Moore Research and Development Center of Fairchild Hiller Corporation (Republic Aviation Division) at Farmingdale, L.I., New York, under Air Force Contract AF33(615)-1814. The study was initiated in support of Project No. 7164, "Biomedical Criteria for Aerospace Flight," Task No. 716405, "Aerospace Nutrition," by the Air Force technical monitor, Dr. Sheldon London, Physiology Division of the Biomedical Laboratory. The basic study in nutrition was funded by the National Aerosautics and Space Administration, MannedSpacecraft Center, Houston, Texas under NASA Defense Purchase Request R-85.

This study was begun under the direction of Dr. Lorraine S. Gall, who participated in the major portion of the study and was completed under the direction of Mrs. Phyllis E. Riely. Field investigation was carried out by Phyllis Riely, Donna Geib, Diane Shorenstein, Betsy Moss, and Sandra Jones. The authors wish to acknowledge the invaluable assistance of Shirley Dunwoody, Fay Ames, Mae Court, Charlotte Titus, Jacquelyn Miller, Charles Huhtanen, and Dr. Helen Osburg. The identification of Streptococci sp. was carried out by Mr. Arselus West, Microbiologist, of the Biospecialties Branch, AMRL, Wright-Patterson Air Force Base. The information on staphylococcal distribution and coagulase activity was carried out under separate contract (AF33(657)-11716) by Mr. Joseph Rack and Mrs. Bonnie Horstman of Miami Valley Hospital Research Department.

This technical report has been reviewed and is approved.

WAYNE H. McCANDLESS Technical Director Biomedical Laboratory Aerospace Medical Research Laboratories

ABSTRACT

The objective of this study was to collect, under controlled conditions simulating space travel, microbiological data from 13 body areas of 20 subjects and their specialized environment. These data were evaluated to establish biomedical criteria for personal hygiene and sanitation for aerospace missions, and to suggest possible indices of the deterioration of environmental conditions. Data derived in the study provided information on microbial dynamics, the effects of confinement stress on the microbiological populations of individuals, and information on bacterial levels in the closed environment. The study strengthened the evidence that, in general, man can go without bathing for 6 weeks without significant deterioration of the dermis. It pointed out the importance of sampling the groin and glans penis as "indicator" areas which quickly signal deterioration in hygienic standards. The specific buildup of both corynebacteria and micrococcaceae species in almost all sampled body sites was significant. Another objective of this program was to study the effects of the various space-type diets on the fecal flora of the subjects. The data revealed that although the obligately anaerobic character of the feces remained unchanged, the types of anaerobes recovered differed markedly from those found to be predominant in the 'normal" population. The shift in the types of anaerobic bacteria is discussed from the viewpoints of vitamin production, lactic acid production, and deaminating and decarboxylating activities.

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SECTION I

INTRODUCTION

The microflora indigenous to the human or found in his environment plays an important role in his health and well-being. This relationship becomes even more important when the human is subjected to conditions associated with space flight and exploration, not only because these conditions bring the space traveler into close contact with the microflora in his environment, but also because certain space conditions may alter the balance of these microorganisms. Personal hygiene is one important means of controlling the population of microorganisms associated with man, and a thorough knowledge of the indigenous microflora, both of the human and of his environment, in the space capsule is of prime importance in establishing biomedical criteria for personal hygiene and sanitation during space travel.

Many areas of the indigenous flora of the healthy adult male are poorly defined, and the complex interaction between members of this flora and their position in the total economy of the man is poorly understood. In order to define the effects of space simulation on this flora, baseline data were considered essential. To obtain these data, 14 body areas of 20 men were cultured to determine their microbiological flora. The culturing technique was designed to recover the maximum numbers of differing organisms and to assess the temporary predominance of any particular group. Numbers were assigned to the relative frequency of varying groups of microorganisms in an effort to determine any gross change in the total predominants as a result of the conditions of the experiment. This numerical treatment of a biological system is not used as an attempt to quantify the microbial population, but as a guideline to indicate any shifts which may occur in any particular population of any body area at a particular sampling period.

A wide variety of culturing media was employed in an effort to isolate many microorganisms which could not be successfully cultured when a limited number of media were employed. Much of the work carried on by various researchers has dealt with the pathogenic or pseudopathogenic members of the flora, and less emphasis has been placed on the normally occurring nonpathogenic types.

The indigenous microflora of the human body maintains elements of an orderly pattern that is not dictated by chance, but seems to depend on an interaction between the host and the microflora itself. Although there tends to be an indigenous flora common to the human body, this microflora varies from one area of the body to another and may also show minor shifts, depending upon the activity of the subject as well as upon the microorganisms present. A determination of the microflora in the environment of the space traveler will allow an evaluation of the extent to which the indigenous microorganisms of the human spread to his environment, particularly under conditions of space travel.

In this study of biomedical criteria for personal hygiene, it was difficult to assess the effects of any change in the indigenous flora because the experiments were of a limited duration and character. However, any buildup of microorganisms on the body which greatly exceeded a baseline numerical analysis will be noted and discussed.

Microorganisms are usually grown in noncontinuous culture media. Under these conditions bacterial viability, growth rate, and metabolic activity are rapidly altered by the accumulation of the metabolic end-products of the medium as well as changes in the nutrient content, redox potential and pH of the medium. This must be considered in any evaluation of <u>in vitro</u> results, since in the intestine proper, a continuous flow culture exists.

Fecal cultures reflect those organisms present in the stool, and it is essential to consider that viable bacterial populations in the stool are not necessarily completely representative of what is present in the intestine and that the enumeration and characterization of these organisms depend on observations based on their growth on artificial media. Since conditions within the intestine are recognizably different, it is entirely possible for species present in the intestine in small numbers to overgrow the predominant organisms unless proper culturing techniques of dilution with appropriate media are instituted promptly.

The changes in the fecal flora will be discussed; however, the interpretation of these changes will be suggested, rather than absolute, due to the limited time span of the experiment. This is essential since, for example, it will be very

difficult to assess the change in vitamin production or utilization by varying members of the intestinal ecosystem. The effects of the interaction between the host and biota and the differing groups of this biota may not be obvious as it will be difficult to evaluate their positive or detrimental activity. In addition, many of these effects may be difficult to recognize since they have never been clearly defined. The relationship of the indigenous biota to the nutrition of the host under normal conditions is considered to be a prime physiological factor in the ability of the host to remain in nutrient balance. In addition, antibodies are formed by the host against certain of the minority members of the indigenous flora, but these and bodies are not strong enough to protect the host when large segments of the flora are changed by the administration of antibiotics. Many recent studies have indicated that a specific agent (which has not been isolated) is produced by some member of the normal flora and is essential in maintaining the equilibrium which is normally present (1). A radical shift in the proportions of carbohydrate to protein to fat will change the relative prevalence of the many members of the flora. This is an unfavorable physiological state for the host since many groups of organisms; i.e., enterococci and slow lactose fermentors of the Enterobacteriaceae group will rapidly become prevalent under the different dietary regimens.

The number of lactobacilli are increased by feeding large quantities of lactose. In addition, it is well documented that the feeding of diets high in meat protein, gluten, or case in results in a decrease in bacteroides or a concommitant increase in coliform organisms and enterococci. High butterfat content in the diet seems to inhibit the growth of \underline{E} , coli and $\underline{Proteus\ vulgaris}^{(2)}$.

Many animal studies have shown that the microbiota drastically influenced the rate of growth, utilization of nutrients, and resistance to infection and stress (3). Other recent animal studies have shown that some types of microflora seem to have undergone an evolutionary adaptation with their host and contributed to the effective functioning of his gut (4). Other microorganisms seem to possess an ability to produce infection and hence elicit a protective response in the host which keeps them in check, unless the resistance of the host is lowered or the major predominant microflora are eliminated by antibiotics. In addition, a third segment of the flora is that acquired accidently either by contact or through the diet.

This segment of the flora can be either pathogenic or harmless, dependent upon the physiological state of the host at the time of contact. Those biochemical activities which have been defined, vitamin production or consumption, the ability to synthesize biologically active substances such as amino acids, bile, and the by-products of these microbial interactions are all important to the physiological status of the host.

An association between the presence of proteins in the gut, intestinal bacteria, elevated blood ammonia levels, and hepatic coma is now widely accepted, although the precise role of ammonia in hepatic coma is not defined. The importance of the colonic microorganisms in the pathogenesis of the portal system has been emphasized by recent advances in the modes of treatment of colonic infection⁽⁵⁾. The ammonia production is dependent not only on the numbers and kinds of organisms present, but also on the nature and quality of the nitrogeneous substrate that reaches the bacteria in the lower intestine.

The current knowledge of enteric bacterial populations is being investigated to delineate the normal variation in the quantity or quality of this enteric flora. At the present time, the mechanism by which bacteria residing in the intestine impair proliferation is not clear, and their activity seems to be greater than the production of colicines or antibiotics would account for. It is necessary to consider the competition for nutrients in the gut, since changes in the nutrients offered to the 'normal" flora result in a shift in the predominating flora. This may be the result of the competition for fermentable nutrients in a relatively reduced environment and is a result of microbial interaction.

Even less is known about the effect of those microorganisms indigenous to the skin of man. The study of these microorganisms has mainly been directed toward evaluating their presence in disease states, and little is known of the protective or destructive mechanisms of this flora. For this reason, primary emphasis has been placed on defining those groups of microorganisms indigenous to the outer layers of the skin in areas which may be influenced by the mode of personal hygiene employed. Changes in the relative predominance of these varied groups of microorganisms will be noted and interpreted, as will the effects of space suits, increased temperature, increased humidity, and the effect of confinement.

This research program has been designed to obtain microbiological data pertaining to the following areas: scalp, ear, eye, nose, buccal or gingival area, throat, axilla, umbilicus, forearm, groin, glans penis, anal fold, and toes, as well as the feces. Each area must be considered separately, since there are conditions peculiar to each site which will influence both the kinds and numbers of bacteria occurring. In addition, there may be a certain interchange of microorganisms from one part of the body to another where their indigenous character may be questionable. Thus any one of the areas of the body may harbor not only their own peculiar indigenous flora, but also "transient" flora which is primarily considered to be characteristic of another area of the body.

The eye, ear, nose, and throat are located in rather close proximity, but each has a number of conditions peculiar to the individual areas which will influence the microflora. Two factors which influence the microbial flora of the eye are an antiseptic secretion from the tear duct as well as the mechanical action of the lids. In addition, the normal microflora of the eye produces antibiotics. The ear secretes a waxy material which offers peculiar nutrients favorable to certain bacteria such as members of mycobacteria and fungi. The nose presents certain special conditions in the form of nasal secretions and protective hairs which help to screen out prodigious numbers of microorganisms so that only a few of the up to 14,000 microorganisms that enter the nose each hour survive (6). The biota of the throat has had more recognition than most other parts of the body, but this attention has been specialized according to the particular interest of the individual worker to the detriment of defining the overall biota. The throat has certain specialized areas, including the tonsilar crypts, which offer many locations for harboring microorganisms and which present the anaerobes with a very favorable condition for growth.

Although the skin covering the whole body has similar characteristics, several areas present their own peculiar conditions. For example, the axillary region contains many hair follicles and is also a region of maximum perspiration. The umbilicus also harbors a rich microflora because it is recessed and has folds and creases. The groin, because of the close apposition of skin areas, is particularly subject to a breakdown of the primary layer of skin and ensuing local inflammation and infection. Its locale is such that not only skin organisms but also those

of fecal origin may be found. The anal fold is, of course, particularly subject to contamination from the fecal organisms, and the numerous fissures (which may be influenced by the amount of bulk in the diet) offer an excellent habitat for the microorganisms, including some of the obligate anaerobes which predominate in the feces. Other specialized areas which must be considered are the scalp and the toes. The numerous hair follicles on the scalp and the unique protection afforded by the hair seem to favor fungal growth as well as certain other types of bacteria. The moisture found between the toes offers ideal conditions for certain types of fungi. An important area to consider is the gland penis since the hygienic measures possible in spacecraft, of necessity, are limited. Communal sharing of sanitary facilities might easily lead to spread of infection. Among the skin areas considered here, all were essentially protected sites. It is important to consider an exposed area such as the forearm since environmental contamination could most easily be demonstrated in such an area.

The intestinal tract presents entirely different conditions for bacterial growth from any of the sites of the human body already discussed. The intestinal tract is essentially an anaerobic area in which fragments of undigested food and body secretions are accumulated. The microflora of the feces reflects these specialized conditions and is predominantly anaerobic.

The indigenous microflora of the environment surrounding the subject also will vary from site to site. Certain types of microorganisms will collect more frequently in areas where dirt and dust accumulate, when as other microorganisms associated with the human body will tend to be found in the experimental areas of heaviest human occupation. Some types of microflora such as fungi thrive in damp situations, whereas many spore-forming microorganisms may survive in areas so dry or hot that nonspore formers would be largely eliminated. These probable differences in the microbial types were considered in the choice of the representative areas of the environment which were sampled.

"Normal" variations in microbial populations must be determined prior to any attempt to assess the importance of relative shifts in any segment of this population. During a normal day, changes in the activities of the subjects will influence the quantity of perspiration secreted, the pH of this fluid, and the temperature of taking of the sample is an important consideration in the interpretation of the results. The amount of activity associated with the daily schedule of the subjects will influence the numbers and kinds of microorganisms recovered in the environment. The relative humidity and temperature of the atmosphere in the space simulator are contributing factors to the microbial population of the environment as is any shift in the gaseous environment.

The experimental design required the establishment of a strict experimental protocol in order to define the bacterial and fungal flora. This included the isolation of the subjects from other individuals and from the environment external to the room. In addition, any break in the isolation procedure was monitored and necessitated the use of procedures normally associated with hospital operating room technique; e.g., the donning of sterile garments by the personnel involved.

Of prime importance to the successful culturing of the varied body areas and environment is the adequacy of the sample procured. Bacteriological sampling by subjects living under simulated space system conditions required close supervision to ensure that the samples were truly representative of the area and that they were handled according to established procedures including immediate culturing. Of equal importance is the adequacy of the culturing schema which was devised to consider both aerobic and anaerobic Lacteria and included many differential media in order to obtain the maximum information within the framework of the cultural workload.

During certain periods of the experiments, subjects were confined to the Aerospace Medical Research Laboratories Life Support System Evaluator which is an 1100 cu. ft. man-rated chamber in which humidity, temperature, and partial pressure of gaseous constituents can be controlled. This facility is used to simulate various space mission profiles. The taking of samples by the subjects while in the Evaluator presented several significant problems. It was essential that the media (particularly the anaerobic) were transferred into the chamber immediately prior to the culturing period. The use of proper technique in swabbing and in adding the swab to the broth was important in the accuracy of the results. It was essential to instruct the subjects in the technique of swabbing in the various areas and in the addition of the swab to the culture tube.

A review of the literature pertinent to all phases of this study has been completed and two texts are preeminent: Microorganisms Indigenous to Man by Theodor Rocebury and The Ecology of the Human Skin by Mary J. Marples 8. Both of these authors have assembled tables dealin with the "normal" flora and based on the work of many authors. These tables are included in Appendix II in order that the results from this study may be compared with the "normal" flora shown in these tables. Comparisons will be made with other authors' studies in specific instances where additional information will strengthen this study.

Many studies have been conducted on people who were institutionalized for various reasons and the results may be a reflection of the health and well-being of the subjects. Our study was concerned with microbiological data obtained from healthy young men. In addition, the microflora of these same men was sampled a significant number of times during a six-week period of confinement. The data from the early sampling periods will be a reflection of the "normal" baseline flora of the subjects; and following entry into the Evaluator, will reflect the effects of confinement, stress, and space-type diets upon this flora.

SECTION II

MATERIALS AND METHODS

A. COLLECTION OF SAMPLES

The procedure for the collection of samples from the body areas, feces, environmental and miscellaneous areas are described for each class of samples.

1. Body Areas

Two swabs from each body area were collected by subjects in either the controlled activity facility or Evaluator at 8-10:00 a.m. on specified days (Table 1). One swab was placed in 10 ml of Gall's broth plus cysteine for anaerobic culturing and one was placed in 10 ml of heart infusion broth for aerobic culturing. Collection was made by swabbing a 1 by 1/2-inch area as follows:

- a. Eye: Evert lower eyelid and swab conjunctiva gently, following contour of eyelid with swab.
- b. Groin: Swab from front toward rear.
- c. Axilla: Swab with care to get specimen from skin below hair area.
- d. Throat: While depressing tongue, swab tonsillar area.
- e. Mouth Area: Swab gingival margin adjacent to the last upper right molar.
- f. Glans Penis: Swab specified area of skin of glans, or between glans and foreskin.
- g. Ear: While pushing earlobe down and toward neck, gently swab external auditory canal with a circular motion.
- h. Nose: While pushing the fleshy tip of the nose upwards, gently insert swab and rotate.
- Umbilicus: Gently expose deeper folds of umbilicus by pulling upwards on surrounding abdominal tissue in order to swab all areas.
- j. Anal Fold: Gently roll swab over area immediately adjacent to external anal sphincter.
- k. Toes: Swab area between toes.
- 1. Scalp: Swab with a scraping motion within the area of hair growth.

- m. Tongue: Roll swab from left to right on posterior portion of tongue.
- n. Gingival (Experiment IX only): Dental instruments were employed to obtain samples from the appropriate areas.

For purposes of approximate quantitation each swab was considered to contain about 0.01 gm of sample.

2. Feces

Fecal samples were eliminated into plastic containers and were cultured within 15 minutes of elimination.

3. Environmental Areas

Aerobic cultures were made from several room areas, using two procedures:

- a. Sedimentation plates of blood, MacConkey's, actinomyces agar, and phytone yeast were made from the following room areas as indicated on Table 1 by exposing the plates for 30 minutes.
 - Tables, fore (eating) and aft (games, etc.)
 - Bed
 - Floor, personal hygiene area
- b. The following areas were swabbed. These swabs were placed in 10 ml broth and incubated aerobically.
 - Communications equipment
 - Refrigerator door handle
 - Bed post
 - Transfer lock handle

B. PRIMARY CULTURING

1. Primary Culturing of Body Areas (other than feces)

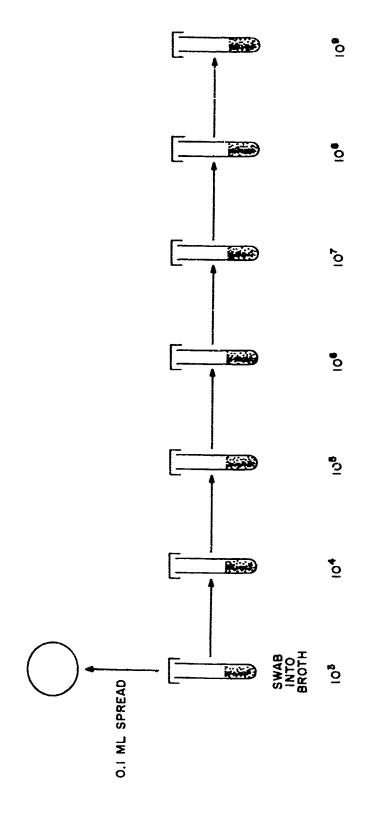
a. Aerobic

The aerobic swab collected by each subject for each body area was emulsified in the 10 ml of broth into which it had been placed when collected. Tenfold serial dilutions in 4 to 6 tubes of trypticase soy broth were made depending upon the numbers of organisms expected to be present in the sample based on

previous experience. The exact procedure for culturing is shown in Figure 1. The trypticase soy broth series was incubated aerobically and observed for growth at 24 and 48 hours. All cultures showing growth were smeared. Aerobic plates were made on the media listed in Table 2 for each of the body areas by spreading 0.1 ml of broth from the most suitable dilution on the plate using a glass spreader. An additional blood agar plate was made in the same manner from the initial dilution. The aerobic count was obtained from a blood plate according to standard method techniques.

b. Anaerobic

The anaerobic swab from each body area (collected by each subject in either the Evaluator or controlled activity facility) was emulsified in 10 ml of broth. The sample was then serially diluted by tenfold dilutions depending upon the numbers of organisms expected to be found in that particular sample. The procedure, which is essentially the same as the aerobic method, is depicted in Figure 1. The cultures were then placed in an anaerobic jar, incubated at 37°C in an atmosphere of 10% CO2, and observed after 24 and 48 hours for growth. Agar shakes in Gali's agar, as well as slides, were made from the top dilutions showing growth. The agar shakes were then transported from the site of primary culturing to Republic Aviation Division's laboratories where the cultures were identified. In addition to the serial dilutions, anaerobic Brewer plates were made with 1.0 ml of the appropriate dilution from the throat, mouth, and glans penis samples using Gall's agar with cysteine. In Experiment IX, two additional areas (the gingiva and anal feid) were added. A blood agar plate and, where indicated, a chocolate agar plate were inoculated with 0.1 ml from the second dilution tube and spread over the surface of the plate with a surflie, bent-glass rod. A pour plate of Rogosa's agar, when indicated by the body area, was inoculated with 1.0 ml from the third dilution tube. These plates were incubated in the 10% CO, anzerobic jar. Deep blood agar shakes were made only from the mouth and gingival samples by placing 1.0 ml of blood into a cooled Gall's agar shake and inoculating with 0.2 ml from the third dilution tube.



The counts resulting from these Platings are dependent upon prior counts and change during the run. varied dilutions are changed and recorded as would appear on 10^4 .

FIGURE 1. AEROBIC OR ANAEROBIC CULTURAL SERIES FOR ALL BODY AREAS

2. Primary Culturing of Feces

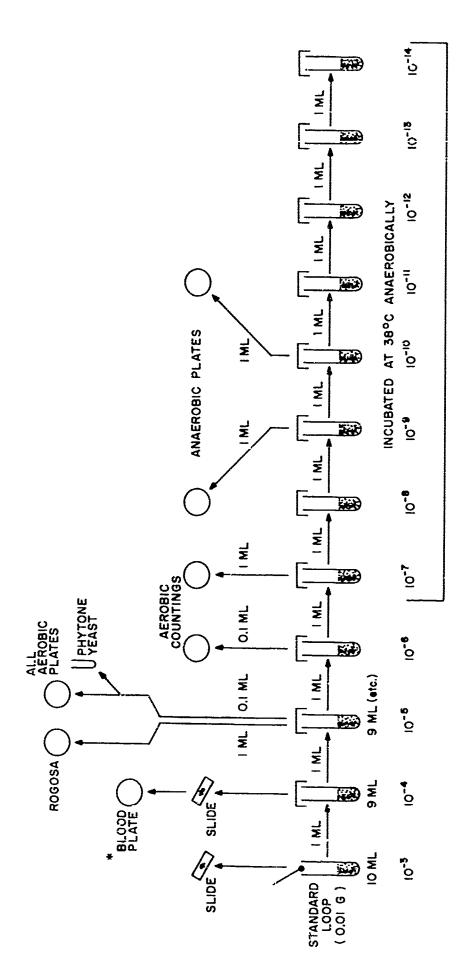
a. Aerobic

The aerobic plates from the fecal sample were taken from the anaerobic broth series. One-tenth ml from the third dilution tube was used as the inoculum for all aerobic plates, as well as the anaerobic blood plate. This was spread with a sterile bent glass rod upon the surface of the media. One-tenth ml from this dilution tube was also used as inoculum for a pour plate for the aerobic count. One ml from the third dilution tube was used as inoculum for the Rogosa's pour plate.

b. Anaerobic

The anaerobic broth series for the primary culture of the fecal sample was essentially the same as that used previously by Gall, et al⁽⁹⁾ for culturing rumen anaerobes, and which has been recently successfully adapted in the Republic laboratories to the culture of human feces⁽¹⁰⁾. This is a technique that can be adapted easily for work under field conditions. Figure 2 gives a schematic representation of the primary culturing technique, which is modified to culture from a standard loopful (0.01 gram) of freshly eliminated fecal material. Samples were cultured within 15 minutes of elimination.

The fecal material on the standard loop was placed directly into a tube containing 10 ml of Gall's broth prepared by addition of 0.1 ml of a cysteine sodium bicarbonate solution. This tube was considered to represent roughly a 10^{-3} dilution to the fecal contents. Serial dilutions were made into 11 additional tubes containing 9 ml of Gall's broth prepared as above by transferring 0.1 ml from the inoculated tube into the next tube, etc. The top 10 tubes were incubated anaerobically in an anaerobic jar containing a 10% CO₂ atmosphere until growth occurred. Observations for growth were made at 24 and 48 hours and at appropriate intervals thereafter. Growth usually appeared within 48 hours. These ten tubes were considered to approximate a dilution of the sample from 10^{-4} to 10^{-13} . No dilution blanks were used, as each tube containing broth acts as a dilution blank for the next tube in the series. From tubes 5 and 6 pour plates were made into anaerobic Brewer dishes using Gall's medium with cysteine bicarbonate solution added.



*For additional identifications

FIGURE 2. ANAEROBIC DILUTION SERIES (FECES)

The top three tubes showing growth were subcultured into agar shakes using Gall's medium to observe the anaerobic or aerobic character of the microorganisms and to preserve the cultures for transport, purification, and further study. Each culture was stained by Hucker's modification of the Gram stain and the slide was observed microscopically.

In addition, blood plates were made from the 10^{-3} and 10^{-4} dilution of the fecal sample by the same technique as the aerobic plates from the other body areas and were incubated at 37°C in the same manner as the anaerobic broth series; i.e., in 10% CO₂ atmosphere in an anaerobic jar. Growth was recorded after 24 hours and the plates were treated in the same manner as the anaerobic blood plates described below.

3. Primary Culturing of Environmental Areas

The sedimentation plates made from the several room areas listed on p 10 were exposed for 30 minutes, incubated at 37°C, and observed for growth at the end of 24 hours. The swab cultures taken from the environmental areas were placed in broth and inoculated aerobically at 37°C. Smears were made of all broths that grew.

C. SECONDARY CULTURING

1. Aerobic

All the cultures from the Petri dishes incubated aerobically and under CO_2 from all body areas, feces, environmental areas and miscellaneous items were returned to the Republic Aviation Division's laboratories where selected colonies were picked into broth. Cultures picked from the anaerobically incubated plates were incubated in the CO_2 incubator while all other colonies from the anaerobic plates were processed by the usual aerobic methods. The cultures were smeared, stained, observed microscopically, separated according to morphological types, and processed according to the schema, if applicable.

- a. Staphylococci* and Micrococci
 - Mannitol salt agar
 - All positives confirmed with coagulase test
 - Phage typing on selected cultures
- b. Streptococci**
 - Alpha hemolysis
 - Beta hemolysis
 - Gamma hemolysis
 - Differential sugars
 - Typing
 - Temperature
 - Salt tolerance
- c. Pneumococci
 - Pneumococcus broth bile solubility
- d. Haemophilus
 - Isolated strains identified with typing antisera
- e. Neisseria
 - Sugar screen test
 - Oxidase test
- f. Lactobacillus
 - Culture and morphology in Rogosa's medium
 - pH in glucose broth
 - Ecology
- g. Gram Positive Rods
 - Loeffler's
 - Morphology
 - Gelatin
 - Sugar screen
 - Hydrolysis of starch
 - Detection of hyphae (Actinomycetales)
 - Tellurite
 - Catalase
 - Hemolysis on sheep blood
 - CO₂ requirement
 - Litmus milk
- * The identification of the staphylococci was carried out under separate contract by personnel from the Miami Valley Hospital Research Department, Dayton, Ohio. The results of the work are included in overall summary and tables.
- ** Work performed by A. West, Research Microbiologist, Aerospace Medical Research Laboratories, Wright-Patterson Air Force Base, Ohio.

h. Gram Negative Rods

- TSI
- Indol
- Methyl red
- Voges-Proskauer
- Simmon's citrate
- Urease
- Nitrate
- Motility
- Gelatin
- KCN
- Phenylalanine
- Cytochrome oxidase (on all alkaline over alkaline TSI's)
- Typing antisera (shigella, salmonella, E. coli, klebsiella)

i. PPLO

Dienes¹ stained agar technique

j. Fungi

- Phytone yeast media
- Wet mount
- Lactophenol cotton blue
- Corn meal agar
- Fermentation series when indicated

k. Actinomycetales

- Actinomyces media
- Morphology in culture, smears and wet mounts
- Biochemical series

1. Spirochaetes

- Blood broth (morphology)
- Darkfield when indicated
- Vincent's stain

m. Protozoa

• Identification by selective stains

2. Anaerobic

a. Body Areas Other Than Feces

The agar shakes made from the dilution series and the colonies picked from the Brewer plate (when made) were separated into two groups depending upon the degree of anaerobiosis. The obligate anaerobes were processed in the same way as the fecal anaerobes described on p 18 with the exception that many of

the cultures, particularly from the mouth, gingiva, throat, and glans penis, were identified from Bergey's manual⁽¹¹⁾. The facultative anaerobes were grouped according to morphology and were processed as described in this section under C.1. A morphological and biochemical key was established consisting of the results of the screen tests from the most frequently occurring fecal anaerobic cultures and was designed to group similar bacteria. Each different screen test pattern was assigned an FA, FN, or GD number. The FA and GD types were used to designate obligate anaerobes and the FN types to designate facultative anaerobes (see Table 3).

b. Feces

The agar shakes from the top three tubes of the cultural series were processed in the following mamer. The agar shake cultures were transferred to Gall's broth plus cysteine and incubated anaerobically until growth occurred. Gram stains were made and, if the cultures were pure, they were immediately screen tested as described below. Cultures showing two or more distinct morphological types of bacteria were purified by plating using the following anaerobic technique. A needle of the impure broth culture was spread on a bed of Gall's agar which was then covered with a layer of Gall's agar with added cysteine. The plates were incubated anaerobically in a Torbal jar with hydrogen and 10% CO₂ and discrete colonies were picked. Selected colonies on the anaerobic Brewer dishes originating from tubes 5 and 6 were picked and treated like the subcultures from the agar shakes as described above. The physiological studies of the pure cultures isolated from the feces included the following screen tests:

- (1) Gram stain to observe morphology
- (2) Final pH in 0.1% glucose broth
- (3) Fermentation of the following sugars in Gall's media with glucose omitted (glucose, sucrose, lactose, dextrin sugars added at 0.1% level aseptically after autoclaving)
- (4) Growth in Gall's broth with no carbohydrate added
- (5) Liquefaction of 12% gelatin in Gall's medium minus carbohydrate
- (6) Growth and reaction in litmus milk (to which 0.05% bovine albumin and 0.1% of peptone have been added)
- (7) Growth in agar shake containing Gall's medium

All media contained bicarbonate and all media except the agar shake contained cysteine to produce an Eh of about -200 mv. The results of the screen tests on each anaerobic culture were compared with a "key".

GALL'S MEDIUM

Purpose:

Anaerobic culturing

Formula:

Peptone C (Albimi)	1%
Peptone S (Albimi)	1%
Beef Extract (Difco)	1%
Yeast Extract (Difco)	1%
K ₂ HPO ₄	0.1%
$ KH_2PO_4 $	0.1%
Glucose	9.1%

Technique:

Make up to 100 ml with distilled water and tube in 9 ml amounts (pipetted for exactness of dilution) and sterilize exactly 10 minutes by autoclaving. Immediately before use, add aseptically 1 drop of sterile 10% NaHCO3 and 2 drops of 10% cysteinebicarbonate solution*. This gives a pH of approximately 6.8 and an Eh of approximately -200 mv. Add 1.5% agar to the above when agar is needed for shakes and plates. This is done when originally making the medium. In agar omit cysteine except where noted otherwise. To all broth and agar media add 0.05% of bovine serum.

^{* 10%} cysteine-bicarbonate solution. 20 gms Cysteine Hydrochloride, 100 ml 1N NaOH, 7% NaHCO₃. Add the cysteine hydrochloride to the NaOH, giving an approximate pH of 7.0. More or less NaOH will be needed depending on the particular batch of cysteine hydrochloride. To 4 ml of this solution (15% cysteine) in a test tube, add 2 ml of 7% NaHCO₃. Seal with melted vaspar. Autoclave at 15 lb. for 10 minutes.

GALL'S GELATIN (i.e. 12%)

The use of gelatin in culture media for studies of gelatinolysis (elaboration of gelatinolytic enzymes) by bacteria. Purpose:

Formula:	Bacto tryptone	10 g
	Bacto peptone	10 g

Bacto yeast extract 10 g Bacto beef extract 10 g Monobasic potassium phosphate 1 g Dibasic potassium phosphate 1 g 1 cc Serum Gelatin 120 g

SECTION III

EXPERIMENTAL RESULTS

The design of the sample schedule was based on the requirements of the original study (12). However, the five experiments differed in certain respects. Table 1 lists the test conditions of each particular experiment, as well as the dates on which various body areas were sampled and fecal specimens were obtained. The table also lists the dates of the environmental area samplings. Another variable in the experimental procedure was the wearing of space suits by four subjects. Suited subjects are shown on Table 1 for Exp. VII and VIII. The only experiment in which temperature was varied was Exp. IX, during which a temperature of 90°F was maintained for two of the six-week periods as shown in the table. The periods when liquid diets were offered to the subjects are shown on the table for Exp. VII and VIII.

The personal hygiene protocol enforced during all of the experiments is shown in Table 4. This table also indicates whether or not the subjects bathed, and whether they used soap or detergent. The oral hygiene enforced on each particular experiment is shown on this table, as is the type of clothing worn during each period.

The sampling of each body area was carried out by techniques which were described in Section II. The frequency of the sampling, which varied slightly between experiments, is shown in Table 5.

Each subject performed the required sampling in accordance with instructions. Immediately following the swabbing of the body areas, the swabs were placed in aerobic and anaerobic broth for transfer from the chamber for further processing. The processing of each swab followed a definite schema for plating. The primary culture media used for each body area are listed in Table 2.

All tables appear in Appendix II

Figures 1 and 2 depict the aerobic and anaerobic broth dilution series which are set up prior to the plating on primary isolation media.

The numerical counts shown in Table 6 are representative of bacterial colonies appearing on blood plates following 24 hours of incubation. These environmental plates had been exposed to the atmosphere for 30 minutes within either the controlled activity facility or the simulator, and probably represent a true picture of the numbers of bacteria present at any particular sampling period in that area. These counts, which seemed to be a reflection of the bacteria carried by the subjects, built up to a particular level and plateaued, as did the counts of the individuals. Prior to the entry of the subjects into either the controlled activity facility or the Evaluator, an attempt was made to reduce the residual count by the use of an antibacte. All agent, BAC. This product was used as a spray and as an additive to scrub water. This method of treatment proved extremely successful, and the preentry counts ranged from 0 to less than 10 in every instance.

The variation in the number of organisms isolated from the skin of the same individual at different times (Table 7) was not as great as the literature indicated, particularly when the samples were taken in the same manner from subjects experiencing the same environmental conditions. Individual variation included the ability to support a larger and denser bacterial population. This cutaneous population was only temperarily affected by sweating or washing. The effect of any radical change in heat or moisture upon the cutaneous flora has not been thoroughly studied.

The analyses of the numerical data collected from the 20 subjects revealed that the buildup of the numbers of the bacteria present in the various cutaneous areas sampled reached a certain numerical level at about the tenth sampling period (approximately 3-4 weeks). The count remained at this level for the next two sampling periods and then underwent a small decrease in total numbers. This would seem to indicate that in any given area when the bacteria reached a certain level, the food supply could no longer support additional population.

The environmental effect on the skin of wearing the space suit was not as great as might be supposed. No significant difference in the numbers or kinds of

bacteria was noted on suited subjects. The assumption that the more constant temperature maintained on these skin surfaces, together with a higher relative humidity and a reduced air flow, should have been favorable to certain strains, was not substantiated by the appearance of higher bacterial counts.

The axilla and groin were two of the areas showing a marked buildup and, for this reason, are shown separately in Table 8 so that a comparison may be made between the two areas on the four subjects. These particular numbers also point up the individual variation existing between the subjects.

A further clarification of the numbers presented in Table 8 was attempted by separating the counts attributable to staphylococci and corynebacteria and plotting them against each other in order to depict graphically the relationship between these strains at the various sampling periods (Appendix I). Except for Exp. V, the corynebacteria built up to significant levels during all runs and were recovered to a greater extent than were staphylococci. No significant difference was noted during the imposition of 90°F temperature during Exp. IX or was any significant difference noted during the wearing of space suits by Subjects 26, 27, 29, and 31.

The results of these tests are not in agreement with most reports with respect to the numerical proportionate appearance of corynebacteria and staphylococci, however, the results do agree with those of Shehadeh and Kligman (13).

Table 9 is presented to identify the streptococci recovered at the varying sampling periods. The prevalence of <u>Streptococcus salivarius</u> and <u>Streptococcus mitis</u> in the mouth and throat of the subjects was not unexpected; however, that significant number of strains of <u>Streptococcus faecalis</u> were recovered from the mouth and throat prove the indigenous character of <u>Streptococcus faecalis</u> in the upper alimentary tract. A sporadic occurrence of other strains was felt to be insignificant and not a reflection of their position as possible members of the indigenous microflora.

The staphylococci were studied by Miami Valley Hospital Research Department, Dayton, Ohio under separate contract with the Aerospace Medical Research Laboratories (14). Table 10 is based on information received from the Miami Valley Hospital Research Department. The identification of coagulase activity was carried

out by a plate method rather than the conventional tube method. A significant number of coordiase positive strains was recovered from the individual subjects. These strains are considered important because of their potential pathogenicity. Subject 17 carried a positive strain in both the throat and groin. Subject 21 showed a coagulase positive strain occurring on the glans penis, in the ear and nose, as well as on the groin and axilla. Subject 24 had much the same pattern with the exception of the ear. In Subjects 25, 26, and 32 positive strains appeared on the axilla, groin, and glans penis. While Subjects 27 and 28 did not carry a significant number of positive cultures on the axilla, they carried coagulase positive strains of staphylococci on the groin and glans penis as did Subjects 29, 30, 31, 34, and 35. The other subjects showed sporadic isolation of coagulase positive strains.

Neisseria were prevalent at varying times during the five experiments (Table 11). In particular, during Exps. VIII and IX a heavy incidence of neisseria was found in the mouth and throat of Subjects 25 through 36. Sporadic occurrences of neisseria were noted on Subjects 17 through 24. It is possible that neisseria was transferred from subject to subject, but the data present no clear-cut picture.

The occurrence of Enterobacteriaceae from body areas (other than feces) shows the limited distribution of these bacteria (Table 12). Their occurrence in the axilla was sporadic and limited to a few subjects, but agrees with the literature, particularly in respect to the appearance of aerobacter. The occurrence in the eye is felt not to depict the indigenous flora, but to represent a chance contamination of the eye. The appearance of these bacteria on the glans penis and anal area reflect the current level of personal hygiene. The recovery of Enterobacteriaceae from the feces (Table 13) agreed with the data presented in the literature with the exception of isolation of Alkalescens dispar from the feces of Subjects 22 and 26.

The occurrence of <u>E. coli</u> in the feces and the identification of those strains which are typable are shown on Table 14. The high percentage of typable strains (roughly 50%) greatly exceeds the percentage reported in the literature. Various authors have estimated from 2.5% to 10% of the strains carried by the "normal" population are typable. In addition, a number of the typable strains found in this study are among those considered potentially pathogenic by various authors. It is pusible that everyone carries these strains in relatively small numbers and

when the balance of the "normal" flora is disturbed by diet or disease, these minority strains can become prevalent and appear to be members of the predominant flora.

In addition, odd patterns appeared. The biochemical reactions of one repeatedly isolated group of organisms fell between the shigella and <u>E. coli</u> reactions. This group of organisms has been referred to as Pattern S-C. The isolation of typable strains appeared to be greatest during Experiments VIII and IX and may be a reflection of the particular diet used during these two experiments.

One of the most interesting groups of organisms isolated repeatedly were members of the Corynebacteriaceae. Great difficalty was experienced in species identification of these varied groups. This is in accordance with the literature. For example, Pollack et al (15) isolated 52 diphtheroid strains from the human skin, five of which were oleic acid requiring. These lipophilic diphtheroids have been identified as Corynebacterium xerosis by Pillsbury et al (16). Marples et al (17) also found diphtheroids in the interdigital skin of the foot in 38.2% of 175 adult subjects, and reached the conclusion that "Aerobic diphtheroids do not appear to produce any overt changes in the skin and must be regarded as normal residents of the substrate." When species identification of corynebacteria was impossible, biochemical patterns were used for grouping and are shown in Table 15.

The distribution of corynebacterium on the body areas showed marked variations among the subjects. Some subjects carried specific strains in each body area, while others had a sporadic occurrence of different strains in different body areas. More specifically, Subject 24 carried C. acnes in most body areas with only a sporadic isolation of C. pseudodiptheriticum. Conversely, Subject 25 carried pattern A in the ear, C. striatum in the nose and glans penis, C. pseudodiptheriticum in the mouth and throat, and pattern A in the groin and anal area. There was no consistency in the strain isolation. Subject 21 carried C. acnes frequently as well as C. pseudodiptheriticum, but there was no indication of any prevalent strain in any of the sampled areas. Subject 22 carried C. acnes and C. pseudodiptheriticum as did Subject 21 but, in addition, cultures of C. striatum, C. xerosis, as well as pattern A, were isolated sporadically. Subject 23 had much

the same pattern as Subject 24, with C. acnes predominating. However, Subject 26 exhibited the pattern of strain specificity for body area. Pattern S+ was isolated consistently from the groin and glans penis and C. pseudodiptheriticum was isolated from the mouth, pattern A from the ear, nose, and axilla, and an unidentified strain in the throat and nose. Subject 27 was also species specific and carried C. pseudodiptheriticum in the nose and throat, pattern S+ in the axilla and glans penis, C. striatum from the groin, and pattern A consistently in the eye and occasionally in the axilla and groin. Subject 28 carried pattern S+ in the throat and glans penis, C. pseudodiptheriticum in the mouth, and pattern A in the axilla. For Subject 25, the isolation was again sporadic. Subject 32 carried pattern S+ (as described in Table 15) and C. pseudodiptheriticum in the nose. Subject 30 carried pattern S+ in the axilla, groin, and glans penis. Subject 31 carried pattern S+ in the groin and glans penis with many seemingly random isolations of other species. Subjects 17 and 18 carried C. striatum in the groin. Subject 34 had both pattern A and S+ in the nose and C. striatum and pattern A in the axilla, groin, and glans penis. Subject 35 had C. striatum in the groin and anal area, while Subject 36 had C. striatum and S+ pattern in the anal area, as well as in the axilla and groin.

The analysis of the appearance of the strains of corynebacteria by subject was complicated and seemed to represent individual variation, rather than being a result of the experimental conditions. Analysis of the Corynebacteria species by body area rather than by subject was also carried out. Only 8 of the 20 subjects carried corynebacteria in the feces, and the two species C. striatum and C. acnes accounted for these isolations. In the groin, a more diversified distribution occurred, as indicated by the recovery of the following members of corynebacteria: C. striatum, C. xerosis, C. pseudodiptheriticum, C. acnes, and pattern A, as well as striatum S+. There did not appear to be any conformity in either this particular body area or the axilla as far as species specificity, although pattern A, C. striatum and its associated pattern S+ accounted for most of the isolations in the axilla. The data indicate that there is a correlation between the presence of C. striatum and pattern A. On the glans penis, the strain specificity per man was more marked, with S+ being most frequently isolated followed by C. striatum. Pattern A occurred in significant number in two individuals. The

consistent absence of any strain of corynebacteria in the anal area in 15 subjects is significant. Experimental conditions seemed to affect only the total numbers of corynebacteria. The distribution of these varied strains is shown in Table 16 by body area. Table 17 by sampling period, and in Table 18 by specialized body areas. Figures 3, 4 and 5 show the graphic distribution of corynebacteria plotted against the occurrences of staphylococci (Appendix I).

The distribution of <u>Lactobacillus species</u> is also shown in Table 16. Lactobacilli were consistently recovered from the throat and feces in Subjects 17, 18, 19, 20, 21, and 27. The recovery in the other subjects was sporadic and notable by its lack of consistency. In addition, lactobacillus was isolated from the nose, ear, and (surprisingly) on the glans penis in Subjects 22, 23, and 24.

The recovery of miscellaneous aerobes which are considered to be indigenous, but not predominant, is documented in Table 19. Of interest, is the recovery of haemophilus in the feces of Subject 24 on four occasions. Bacteria of the Moraxella-Mima group were recovered sporadically from a few subjects and at a much lower incidence than anticipated.

During Experiment V, a significant number of colonies appeared on various media and the identification of these isolates was difficult. For this reason, actino medium was added to the list of culturing media on subsequent runs. The bacteria isolated from this medium are listed in Table 20. Many of the isolates seemed to be members of the proactinomyces or nocardia groups, and the classification developed by Krassilnikov⁽¹⁸⁾was used as a basis for tentative identification. The principal isolates from the skin are probably Proactinomyces goensis and Proactinomyces spitzi, while Proactinomyces interproximales was recovered from the mucous membranes. Miscellaneous isolates fall under the grouping of Proactinomyces albus. A detailed study of these cultures was not within the scope of this effort. The heavy incidence of these cultures in the earlier sampling periods may have be: ated to the removal of all bacteria from the environment by the use of a BA spray. The 'normal" bacterial balance between the subjects and their closed environment could be considered tenuous, and any factor which contributed to the elimination of large numbers of normally occurring microorganisms may well have allowed the sudden influx of other bacteria whose influence and effects are not well defined.

Fungi were isolated by using a specialized medium (phytone yeast agar). The cultures were incubated both at room temperature and at 37°C. The number of diverse cultures was so great that it was considered necessary to differentiate between the pathogenic and the nonpathogenic species, particularly in the genus candida. Candida albicans was recovered from more than 50% of the subjects and occurred most often in the mouth, throat, and feces. This incidence of recovery is sufficiently greater than that reported in the literature to indicate that it represents a true finding and one which requires interpretation in view of the limited oral hygiene and the particular space diet employed. Two other species of candida (C. parapsilosis and C. gulliermondi) were recovered frequently. Subject 36 carried Candida albicans on the glans penis on seven occasions. The incidence of Trichophyton rubrum and Rhodotorula sp. is in agreement with that found in the literature. Many species of aspergillus are widespread in the environment and are considered to be laboratory contaminants. Their pathogenicity for human beings has not been defined; however, the frequency of isolation of Aspergillus species from the subjects on Experiment IX would indicate that these men were carriers of aspergillus in the nose for a short period of time. Subjects 23, 26, and 27 had numerous isolations of Trichosporum species from the groin and glans penis. Sporadic and frequent isolations of the Penicillium species occurred but no particular significance is attached to these cultures. Among the miscellaneous fungi appearing are: Cladosporium sp., Helminthosporium sp., Scopulariopsis sp., Syncephalastrum sp., mycelia sterila, as well as Phoma sp. and Trichophyton mentagrophytes. Two of the subjects (numbers 27 and 36) carried a much greater number and variety of mycological flora than did the other eighteen subjects. One of these subjects was a negro, the other, a highly nervous individual who perspired profusely. The pH of the skin of these men was not determined, but it could have been a contributory factor to the presence of the various fungi as could the amount of sweat, since the perspiration could be expected to provide a greater source of nutrients for fungi and bacteria than the skin of a subject whose sweat production was minimal (Table 21).

The isolation of pleuropneumonia-like organisms (PPLO) from many body areas of all the subjects at repeated intervals is documented in Table 22. The current opinion of many researchers is that many strains of PPLO are saprophytic

and their isolation should not be considered significant. The PPLO may be "opportunists" and invade in combination with disease-producing bacteria. Their pathogenic position in nongonoccoal urethritis is well documented. For this reason, their frequent isolation from the glans penis was felt to have possible significance and additional emphasis should be placed on studying their occurrence in this area, and its possible significance, as well as on the further identification of the specific strain of PPLO present.

Table 23 lists the dilutions from which the anaerobic blood plates were taken and illustrates the varied tailoring of the sample procedure used to obtain the most meaningful results. It was necessary to modify the procedure for each sample, as in a too heavily inoculated blood plate, the cultures overgrew, and identification of the varied flora became impossible.

During Experiment V, cocci (isolated from the blood plates) belonging to the micrococcae rather than the staphylococci group of micrococcaeae were studied in detail and identification of selected strains from the nose, axilla. groin, and anal area were made. In subsequent experiments, these cultures were disregarded, since they were studied under separate contract by members of the Miami Valley Hospital Research Department (Table 24).

The microscopic identification based on slide observation of the aerobic dilution series is shown in Table 25 and merely confirms the identifications obtained in the conventional manner.

The recovery of micrococcaceae from room areas is shown in Table 26 and is based on information received from the Miami Hospital Research Department and indicates that a substantial number of the colonies recovered consisted of strains showing positive coagulase activity. Since phage typing of these cultures is not available, it is impossible to say whether they show the spread of potentially pathogenic staphylococci between men and their environment.

The environmental sampling based on exposure plates (Table 27) was remarkable by the recovery of a relatively few strains which were potentially pathogenic. Most of these strains occurred on the floor in the vicinity of the personal hygiene area and were a result of the standards of hygiene enforced, or the personal habits of the subjects.

Tables 28 through 34 show the occurrence of the various microorganisms in particular body areas and allow meaningful comparisons to be made with those reported in the literature. Of particular interest are the tables showing the occurrence of various microorganisms on the anal area and axilla, as well as the toes. The consistent recovery of both staphylococci and corynebacterium reemphasizes their position as the predominant organisms in most body areas. The occurrence of fungi in these areas is higher than the literature indicates, but in most instances caused no serious problems.

Table 35 illustrates the nutrient composition of the diets offered the subjects which differed between experiments. The diets for Experiments V and VI have approximately the same number of total calories and protein. The Experiment V diet had slightly more fat than was found in the diet used on Experiment VI. The fresh and liquid diets used in Experiments VII and VIII were very closely matched and it is felt that the most significant difference between the two was in the lower calcium load imposed by the diet used in Experiment VIII. Experiment IX had a significantly higher proportion of total calories in the form of carbohydrates than did the other four experiments. While the protein in Experiment IX was lower than Experiments V and VI, it was substantially higher than Experiments VII and VIII.

Because of the importance of the "indigenous microbiota", microbial profiles of all 20 subjects showing each body area sampled at each sampling period are shown in Table 36. This table documents the recovery (by culture procedure) of all aerobic organisms. In addition, individual variations in the flora of any particular body area can easily be identified, and possible transference can be studied. The microbial profile of each subject must be considered as an entity, since the interrelationship of the microbial populations of body areas is important.

The composition and role of the anaerobic fecal flora in the body of the young healthy adult male has never been completely delineated. For this reason, the predominating anaerobic flora has been grouped and identified by the schema of Gall et al (NASw-738)⁽¹⁹⁾. This artificial schema is based upon certain morphological and physiological characteristics. Table 3 shows the biochemical reactions and morphology of these cultures. This table includes the obligate

anaerobes FA-1 through 18; the G.D. series 1 through 7, which are also obligate anaerobes; as well as the FN series 1 through 5, which are facultative anaerobes, as are CN-1 and 2. In addition, the PS-1, 2, and 3 facultative anaerobic cocci are also included. This method of grouping has been used in order to compare the results obtained under the simulated space conditions of this experiment with the baseline "normal" established under the investigations carried out for NASA by the Republic Aviation Division of Fairchild Hiller Corporation (19). In addition, comparisons were made with two other studies; one carried out for the Aerospace Medical Research Laboratories (20), the other a NASA-sponsored study which was carried out at the Air Crew Equipment Laboratory (Philadelphia) (21). To understand the physiological characteristics of these anaerobic cultures, Table 37, which is reproduced from the NASA study, shows a summary of the physiological characteristics. Additional information on the activities of these cultures is shown on Tables 38, 39, and 40. Table 41 shows an artificial grouping of these anaerobes by activity including lactic acid production, ammonia conversion, decarboxylation, and deaminating activity. This background material is discussed in detail in Section IV under the interpretation of the shift in the predominating types of anaerobic bacteria.

The obligate anaerobic character of the feces was prevalent throughout all experiments. The anaerobes outnumbered the aerobes by 10,000 times on an average. This is substantiated by the enumeration of the aerobic organisms made from the aerobic plate counts which are shown in Table 42. In contrast to these aerobic organisms, which occur in millions per gram, the anaerobic organisms were present in billions per gram. The height of the anaerobic growth in the broth series is shown in Table 43. These data show that the numbers of anaerobic organisms present in the feces seldom fall below the one hundred billionth dilution of the sample and often exceeded it.

The comparative data reaffirms the predominance of the anaerobic bacteria in the fecal flora. To show more clearly the degree of anaerobiosis present in the predominating fecal organisms, the facultative anaerobes are listed separately from the obligate anaerobes. This information is presented in Table 44 which shows the numbers of obligate anaerobes versus facultative anaerobes isolated in the top three dilutions of the anaerobic series of each man for each culturing period.

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Subjects 27 and 31 carried the highest percentage of facultative organisms and represent individual variations within the group.

The distribution of the types of anaerobes found in fecal samples of the 20 subjects is shown in Table 45. The information in this table allows a comparison between runs. The information in Table 46 allows a comparison to be made between individuals on the same run. Table 47 shows the total distribution of anaerobes by sampling period. Table 48 allows the data obtained from each run to be compared. The results obtained on the "Normal Predominating Fecal Flora" (NASw-738⁽¹⁹⁾ are shown in Table 49.

The recovery of the fecal anaerobes of the varying FA types from each experiment is depicted in Table 48. Experiments VII and VIII should have produced the same type of reaction since the diets were so closely correlated. However, significant differences occurred in the number of FA-5's present and the numbers of FA-9, 10, 12, 15, and 18, as well as G.D. 3 and 6. In Experiments V and VI, the differences seem to lie in the appearance of FA-6, 7, 9, and 18. Experiment IX, in which the diet did not closely approximate any of the others, gave results fairly consistent with Experiment VII with the exception of the prevalence of FA-12 and the scarcity of FA-15 and 18, while G.D. 1 and 5 increased markedly.

Vitamin production or utilization by the type cultures is one of their significant contributions to the ecology of the gut flora, and although the relationship between the host and the bacterial source of the vitamins has not been clarified, the vitamin production by the predominating anaerobes is summarized in Table 50.

Another defined area of anaerobic bacteria physiology is the amino acid decarboxylation performed by these predominating anaerobes. This information is summarized in Table 51.

Work was performed on germfree rats to evaluate the function of the predominating anaerobes in the body and these data are summarized in Table 52. A further study directed toward the control of these anaerobes is based on the sensitivity to various antibiotics. The results of this study are shown in Table 53. In addition to the predominating position of anaerobes in the feces, many anaerobes were recovered from a substantial number of body areas. These are listed both by subject, body area, and sampling period in Table 54.

Table 55 shows morphological types of organisms which were present in the anaerobic series. The numerous strains of bacteria which would not transfer to secondary media are identified by morphological types as shown in Table 56.

SECTION IV

CONCLUSIONS

A. BACKGROUND/INTERPRETATION

Interpretation of every detail of the data obtained from samples involving over 50,000 primary cultures and almost 1,000,000 secondary cultures would be a monumental task. For this reason, the conclusions presented herein are based on changes which occurred in 2 large number of samples or were of sufficient magnitude to be considered significant.

1. Bacterial Buildup on Man

In the analyses of the numerical data collected from the 20 subjects, a general conclusion was reached that the buildup of the numbers of the bacteria present in the various cutaneous areas sampled reached a certain numerical level at about the tenth sampling period: i.e., after approximately 23 days of confinement. This condition lasted for the next two sampling periods, ultimately undergoing a small relative decrease of total numbers. This would seem to indicate that in any given area, when the bacteria reach a certain level, the food supply can no longer support an additional population. The bacterial levels reached did not generally cause any visible dermatological problems.

2. Unnecessary Sampling Areas

The numerical data, which reflected the buildup of bacterial colonies at or on specific body areas, were important in determining the merit of sampling certain body areas. Careful consideration of both the numbers and kinds of bacteria present in or on the scalp, ear, eye, nose, throat, axilla, umbilicus, forearm, and anal area would seem to indicate that those areas can be sampled less frequently or eliminated from the monitoring schedule in future work.

3. "Indicator" Areas

These same numerical data cited above indicate the importance of monitoring the level of cleanliness of the glass penis and the groin by bacterial

sampling. The relationship between gingival health and gingival flora, currently being studied by the Republic Aviation Division of Fairchild Filler Corporation in conjunction with Aerospace Medical Research Laboratories (22), make show this area to be a third indicator area.

4. Effect of Space Suits

The effect upon the skin of wearing the space suit was not as great as had been supposed. No real difference in numbers or kinds of bacteria were noted on suited subjects. The assumption that the suit conditions of constant temperature, higher relative humidity, and reduced air flow would be favorable to certain strains of bacteria, was not substantiated by higher bacterial counts.

The two body areas which became uncomfortable for some of the suited subjects were the groin and feet. When the subject had a history of athlete's foot, the wearing of a space suit contributed to an exacerbation of the old infection, usually resulting in <u>T. rubrum</u> causing discomfort. Itching that developed in the groin area was attributed to <u>T. rubrum</u> and members of the <u>Candida species</u>. In In suited subjects, monitoring of the microbiological status of the toes could be an essential prophylactic measure.

5. Effects of pHiso-Hex (8) ca Microflora

The information graphically portrayed in Figures 3, 4, and 5 (Appendix I) suggests that a preentry scrub with pHiso-Hc. Bar verformed in Experiments VI and VII, allowed a relatively greater differential to exist between colonies of staphylococci and corynebacterium than was apparent in Experiments V and VIII, where Ivory soap was used. The antibacterial action of pHiso-Hex particularly against members of the Corynebacteria species, is apparent from these graphs. All the graphs have three peak periods depicting growth levels for corynebacterium and for staphylococcus. With the exception of Experiment V, all other experiments reflect a higher postlevel count than entry count. These graphs reaffirm the necessity for monitoring bacterial levels on the glans penis and groin.

6. 'Indicator' Microorganisms

Members of Enterobacteriaceae which appeared on the glans penis and groin indicated a deterioration of hygienic standards.

The presence of various fungi on the feet, groin, and glans penis could indicate necessity for instituting certain hygienic procedures.

7. Environmental Sampling

Sampling of the bacterial levels in the personal hygiene area and on the eating table should be part of the program, since the bacterial levels in these two areas were considered to have risen to dangerous levels.

8. Microbial Profile

The microbial profile of these 20 subjects is shown in Table 35. The summary results of Rosebury⁽⁷⁾ are shown in Table 57, Marples⁽⁸⁾ in Table 58 and Burnett⁽²³⁾ in Table 59. A comparison of these was made and revealed interesting differences between the results of the present study and those of earlier investigators. In comparing Rosebury's work (Table 57), the greatest difference appeared to be that he recovered <u>Pityrosporum ovale</u> and mycobacterium from the skin although these organisms were not isolated in the present study. In all other respects, the two studies were in agreement. Marples⁽⁸⁾ listed among the residents of the skin, <u>Pityrosporum ovale</u> and <u>Mycobacterium smegmatis</u>. These two strains were not recovered from the 20 subjects of the present study. In addition, gram negative bacilli and <u>Staphylococcus aureus</u> were considered by Marples to be frequent visitors, but the results of the present study indicate that their occurrence was frequent enough to give them indigenous status, as was the occurrence of C. albicans, neisseria, gaffyka, sarcina, and certain species of streptococci.

Distribution of the indigenous microorganisms in man as presented by Burnett $^{(23)}$ (Table 59) most closely approaches the microbial profiles of this study.

9. Effect of Diet on Fecal Flora

One of the objectives of this experiment was to determine whether a space type diet (fresh or dehydrated) affected the fecal flora of the young adult males who subsisted solely on this type of diet for a 6-week period.

Since the dietary periods delineated in the five runs under consideration are relatively short in term, it is impossible to base conclusions on a cause-effect relationship involving physical symptomology. For this reason, the types of anaerobic bacteria predominating during each experimental period were compared with those predominants isolated in the study performed for NASA (19). This comparison considered the in vitro vitamin production, deamination, and decarboxylation activity of these cultures as well as their lactic acid production. Although the relationship between the host ar I these strict anaerobes is not completely defined, their possible role in the body was considered to be a reflection of their metabolic activities.

a. Vitamin Production

One of the characteristics of the predominating fecal anaerobes is their ability to synthesize vitamins. The relationship between this ability and the host has not been clearly defined, although as pointed out by Bell et al (24), "Vitamin K is also synthesized by the intestinal flora, in some patients deficiency may be precipitated by the use of antibacterial agents." In addition, the same authors reported: "It is likely that bacterial synthesis of vitamins especially those of the B complex, in the lower alimentary tract is responsible for supplying a substantial proportion of the daily requirements of riboflavin, nicotinic acid, biotin, folic acid, and vitamin K." Additional importance is given to the acceptance of the intestinal bacteria as vitamin sources by Morris (25). "Many bacteria synthesize vitamins in excess of their requirements and excrete the surplus into the environment. Indeed the excretion of B vitamins by intestinal microorganisms, coupled with autolytic liberation of vitamins from dead cells may furnish such a large fraction of an animal's vitamin supply that it is difficult to render the animal deficient by mere dietary deprivation."

It is significant that the change in the predominating anaerobic bacteria has, in some cases, seemingly resulted in a flora which will produce a smaller amount of the vitamins (Table 50). In particular, the amount of B₁₂ seemed to be significantly decreased in Experiment VII, as did the riboflavin in Experiments V, VII, VIII, and IX. The niacin was significantly lower in Experiments V, VII, VIII, and IX, while partothenic acid production was diminished in

38

Experiments V, VII, and VIII. Folic acid was markedly lower in Experiments V, VII, VIII, and IX. The vitamin production of FA-17, FA-18, and the GD series has never been determined, and it is possible that when they are predominant, they at least partially fulfilled the function of the FA number they replaced.

In view of the reduction in intestinal vitamin synthesis during the 6-week period attributable to the space-type diets (Table 35), it is considered essential to focus greater attention on the maintenance of the normal flora for any long-term space mission.

b. Ammonia Production

In any consideration of intestinal bacterial metabolisms, importance should be attached to the production of ammonia by bacterial degradation in the colon. This ammonia production depends not only on the kinds of organisms present in the gut, but also the nature of the substrate that reaches the lower intestine (25). At least 25% of the circulating urea is metabolized in the gastrointestinal tract (27).

Deamination, which is the result of bacterial action on the substrate, occurs in the intestinal mucosa and is a recognized function of bacterial physiology (24).

In fact, Silen et al⁽²⁸⁾ showed that the large intestine is the source of a considerable quantity of ammonia and that the amount of ammonia normally delivered from the intestine to the blood may be reduced by oral administration of neomycin.

A comparison of the ability of the predominating flora in each experiment to form NH₃ would indicate that the predominating flora in Experiment V had a much lower percentage ability to convert substrate to ammonia, as did those predominates on Experiment VII, however, two of the predominates of this experiment have not been studied for NH₃ conversion. This diminution of the ability of the predominating flora to convert the substrate to ammonia could lead to serious consequences on long-term space missions.

c. Decarboxylation of Amino Acids

Enzymatic decarboxylation of amino acids may have significant effects on the human colon ecology, since the decarboxylation product of amino acids may include toxic amines. In addition, potent vasoconstricting compounds may be formed as byproducts of bacterial metabolism. The four amino acids which commonly occur in humans and were used in screening the FA cultures were lysine, histidine, tyrosine, and arginine; their corresponding amines are cadaverne, histamine, tyramine, and agmatine, all of which are vasoconstrictors.

The delicate balance of the concentration of these naturally occurring physiologically active substances (decarboxylators) in the digestive tract may be upset by dietary restriction, resulting in the failure of bacteria to remove toxic amines from the intestine. This is of particular importance in the administration of certain drugs which inhibit the action of intestinal enzymes that inactivate otherwise toxic amines. These drugs include Niamid, Morphan, Entonyl, Parnote, and Nardil, Alone, these drugs may be beneficial, but in association with foods high in amines, or in individuals whose intestinal flora is not functioning properly, they may cause serious medical consequences (29).

SECTION V

RECOMMENDATIONS

The study pointed out several areas requiring further investigation and areas which merited more specialized research. For example, until the present study, no particular significance had been attributed to the role of the predominating fecal anaerobes in the maintenance of a favorable vitamin balance. Based upon this study, the following major recommendations are made.

- 1. A complete microbiological screening of potential subjects should be instituted prior to confinement. This screening should include: (a) determination of coagulase positive staphylococci strains from all body areas; (b) determination of possible presence of beta hemolytic streptococci; (c) determination of possible presence of fungi, particularly in the foot or groin area; and (d) the feces should be cultured at least twice to determine the presence of potentially pathogenic members of the Enterobacteriaceae. This screening would serve to ensure the health of the subject by eliminating any carriers of potentially pathogenic organisms prior to the study.
- 2. Study the effect of various antibacterial agents such as BAC, pHiso-Hex Safeguard soap, on the skin flora of man. Do this by treating one portion of the groin with the agent, and using only water or relatively pure soap on the other portion of the groin. Ivory soap was used during the baseline studies, however, any other comparable soap (i.e., nonperfumed and non-medicated) would be acceptable. Follow both areas microbiologically. This should be done in order to determine whether any particular agent was more desirable than the others tested.
- 3. Tr₃ certain hygienic procedures (i.e., showers two times a day allowing foam to dry on body) for one week prior to entry into the simulator to see if this regimen substantially lowers total counts and for this reason proves advantageous.

- 4. Compare information recovered from a one-plate identification to that recovered from the use of varied media and if one plate could be used rather than four plates, the culturing would be streamlined.
- 5. Determine the vitamin B production, the deaminating and decarboxylating activities of FA-17, FA-18, and the GD series in order to evaluate their function as members of the predominating anaerobic fecal population (which seems to result from the space type diet). If certain types of diets cause a substantial lowering of production of the B vitamin by bacteria, fortification of the diet may be necessary. If the total deaminating and decarboxylating activities of the predominates are radically changed, animal work should be performed to more fully evaluate the effects of this shift in flora.
- 6. The identification of bacteria at the present time is a relatively long process usually requiring the services of expert personnel. To monitor critical body areas and environmental sites in space missions, a methodology must be developed which will allow identification of the original culture by personnel not highly trained in microbiology.
- 7. The predominating organisms found on the dermis are members of the corynebacteria. The identification of many strains has been impossible and additional research should support both their identification and the study of strain characteristics in order to evaluate the presence of various strains on or in particular body areas. It may develop that certain strains have antibacterial properties against transient microorganisms if this is true no hygienic procedure should be used that will curtail the growth level of these normal inhabitants.
- 8. Determine in vitro antagonistic properties of predominating anaerobes against potentially pathogenic members of Enterobacteriaceae. In the delicately balanced fecal flora, certain pathogens seem to be held in check by undetermined factors produced by other bacteria. Since the anaerobes are present in the most significant numbers, it is logical to determine their in vitro antagonistic properties.

APPENDIX I

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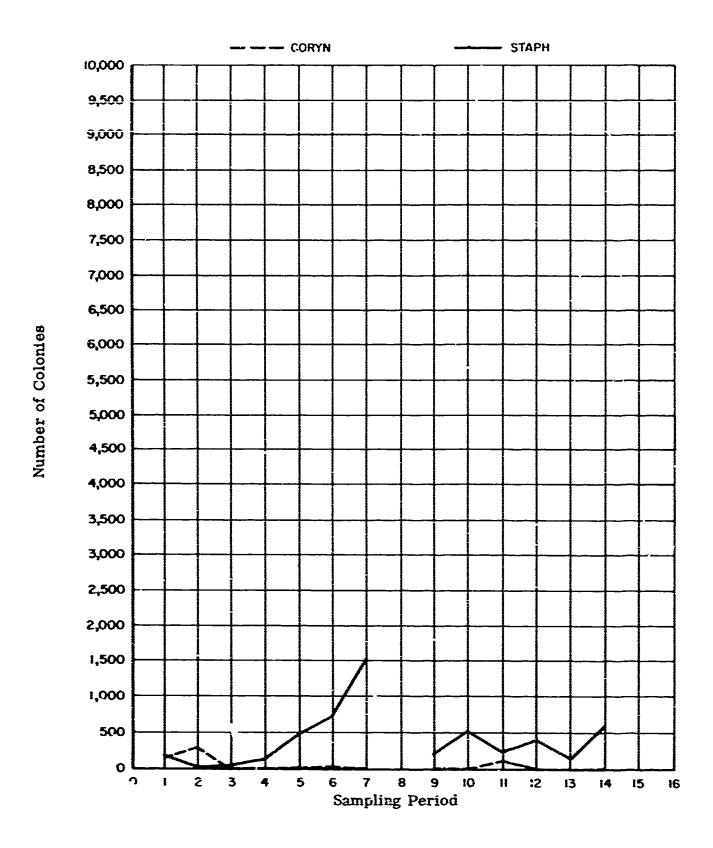


FIGURE 3. AXILLA - EXPERIMENT V (Averaged)

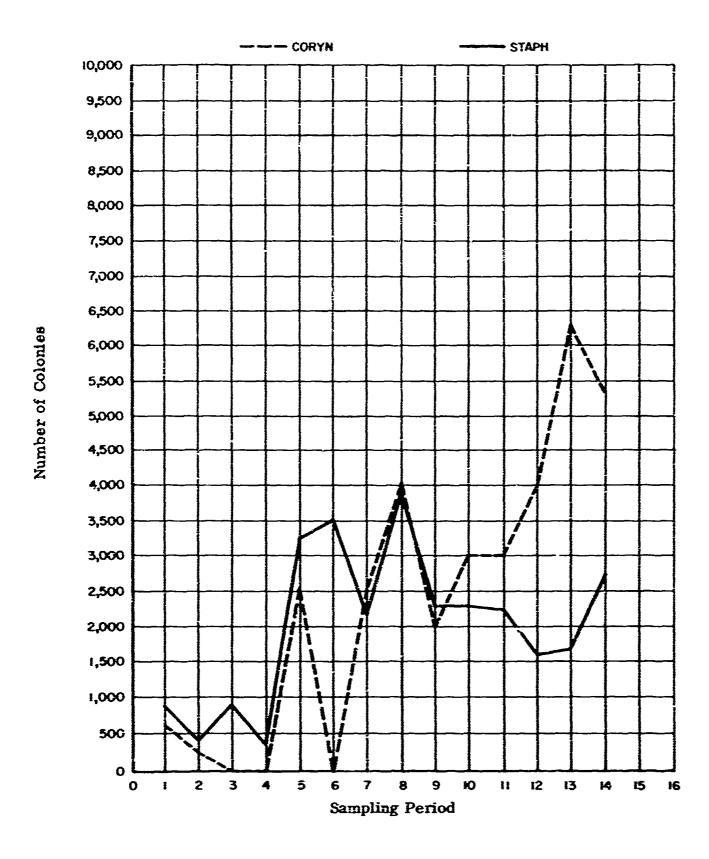


FIGURE 3 —— Continued EXPERIMENT VI

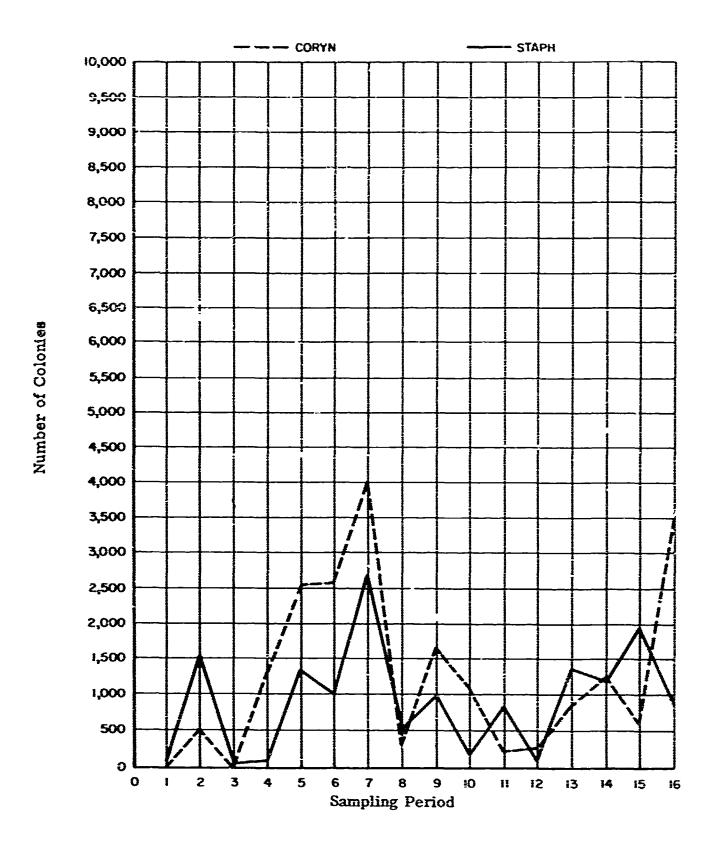


FIGURE 3 — Continued EXPERIMENT VII

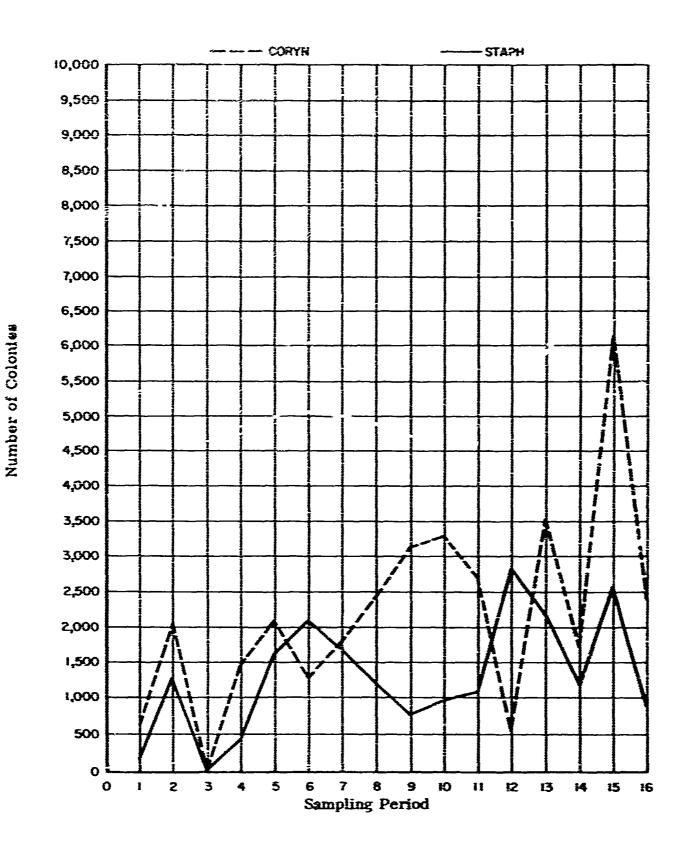
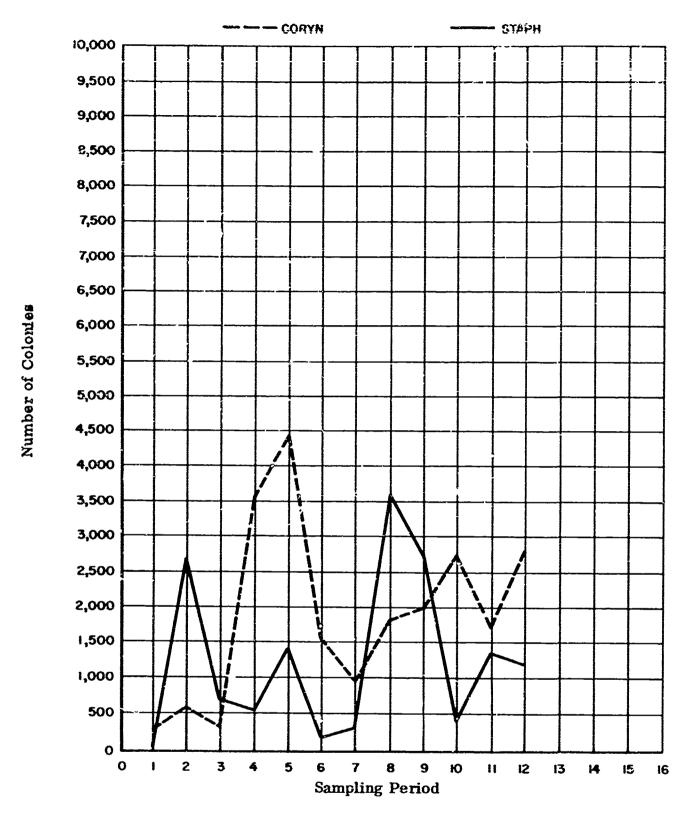


FIGURE 3 — Continued EXPERIMENT VIII



Temperature sampling period 4, 5, 8 and $9 = 90^{\circ}$

FIGURE 3 --- Concluded
EXPERIMENT IX

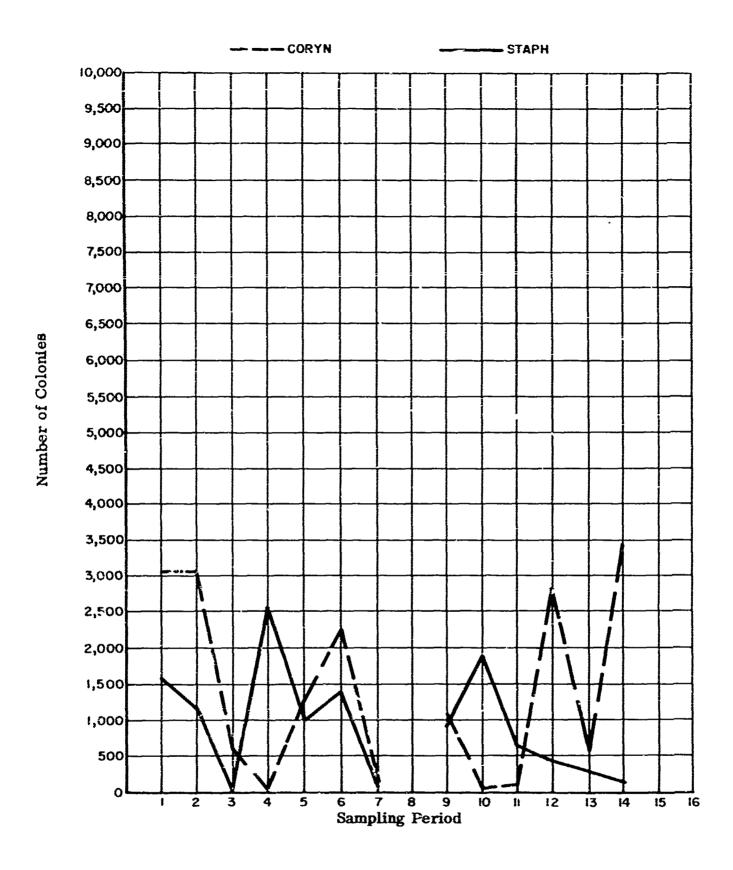


FIGURE 4. GROIN - EXPERIMENT V (Averaged)

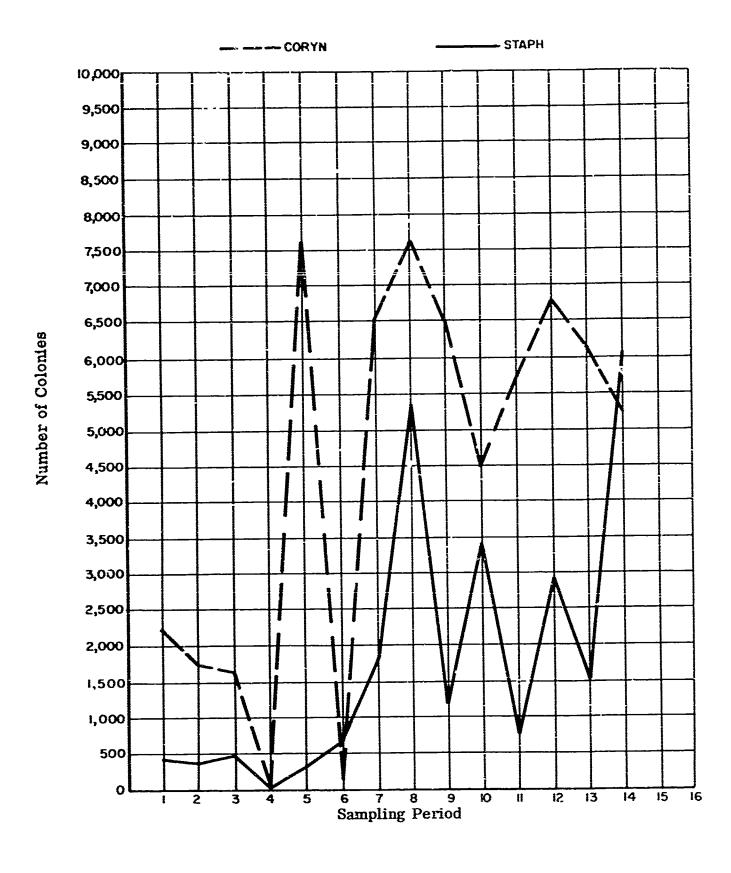


FIGURE 4 --- Continued
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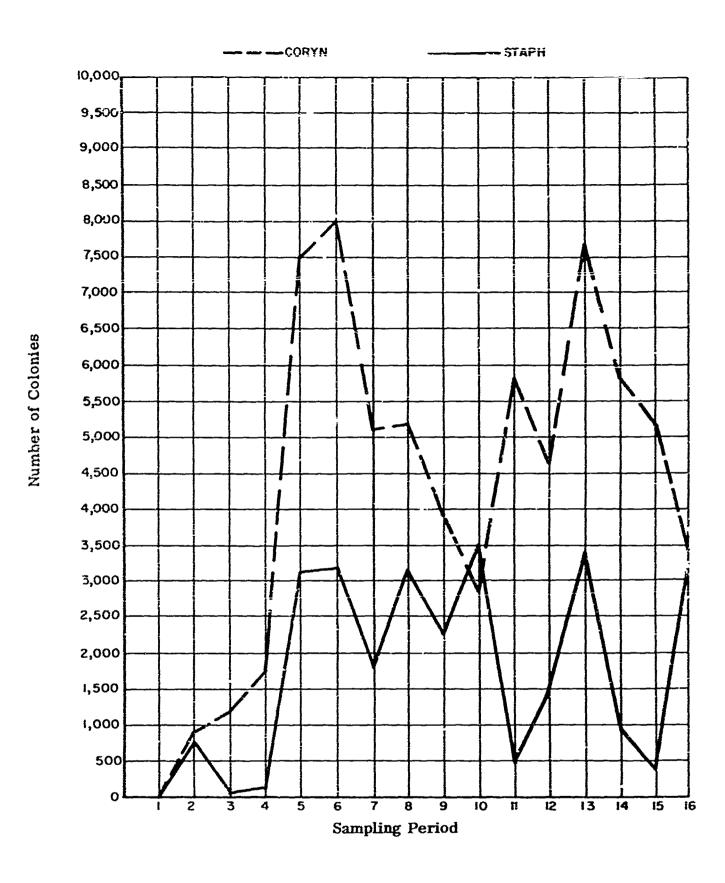


FIGURE 4 --- Continued EXPERIMENT VII

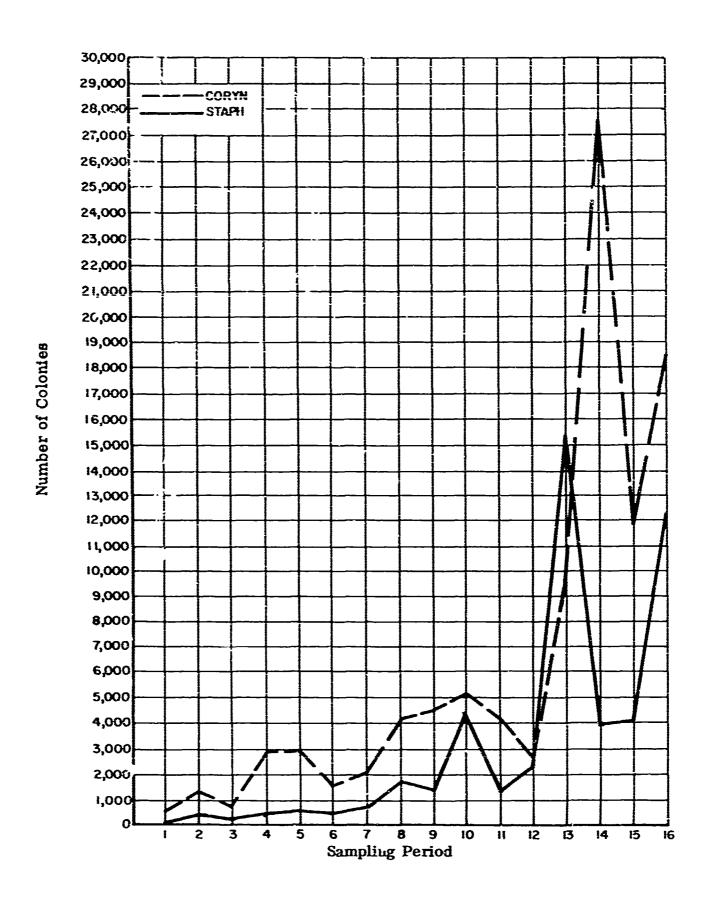


FIGURE 4 --- Continued EXPERIMENT VIII

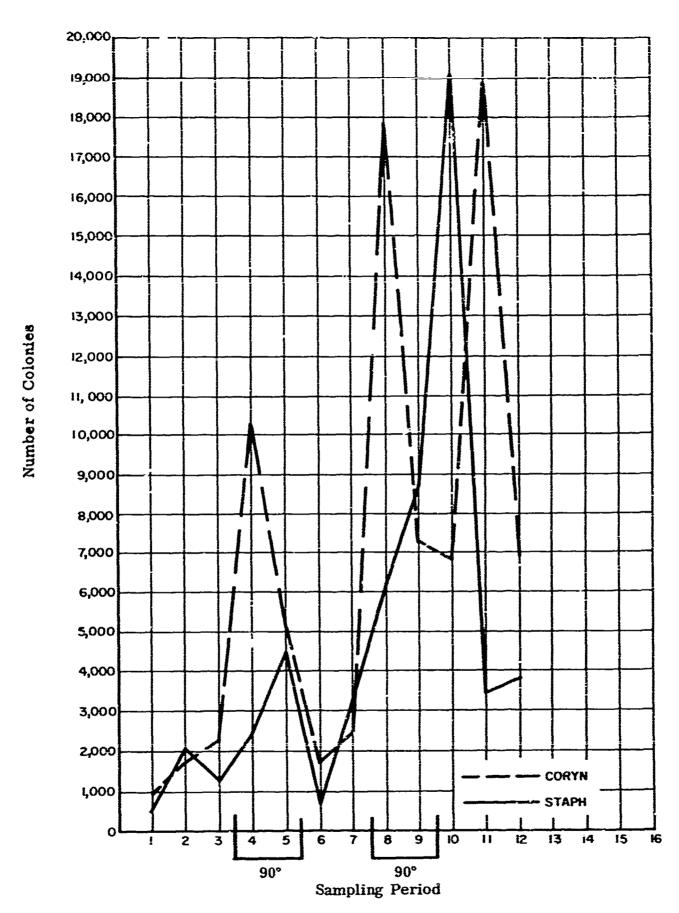


FIGURE 4 --- Concluded
EXPERIMENT IX

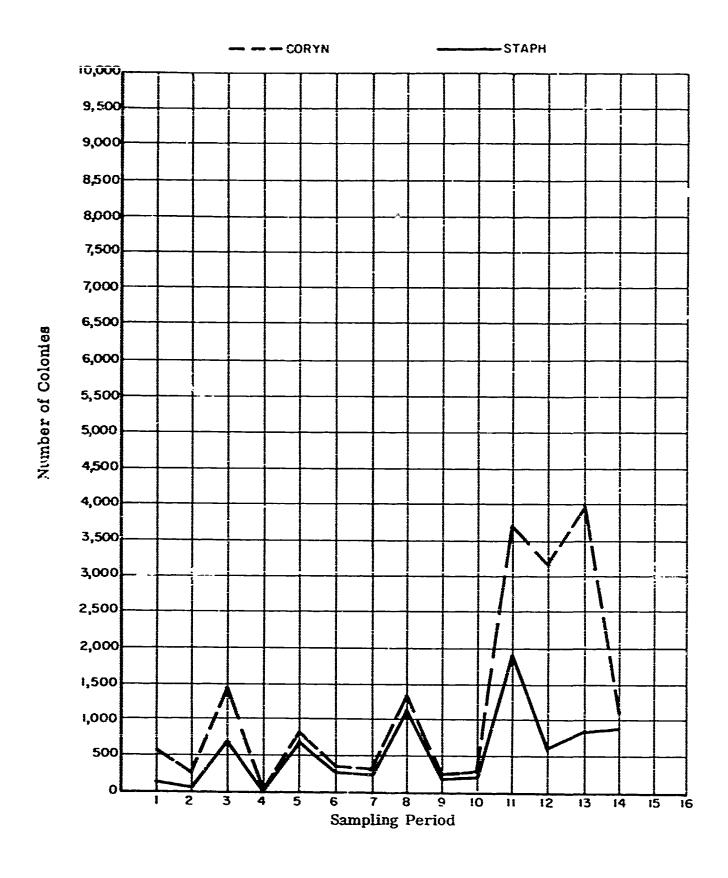


FIGURE 5. GLANS PENIS - EXPERIMENT VI (Averaged)

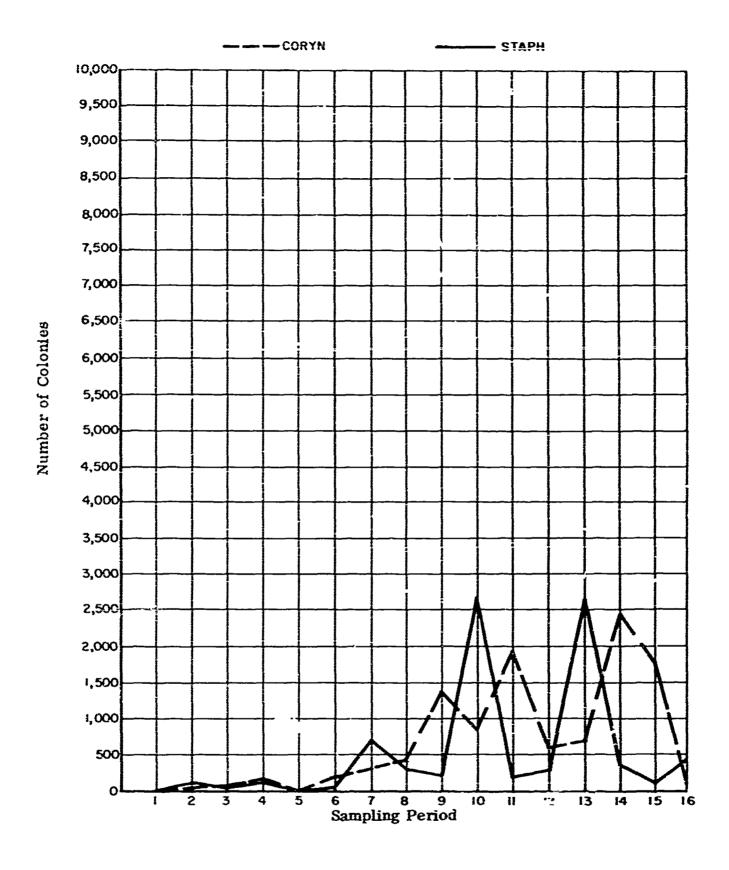


FIGURE 5 --- Continued EXPERIMENT VII

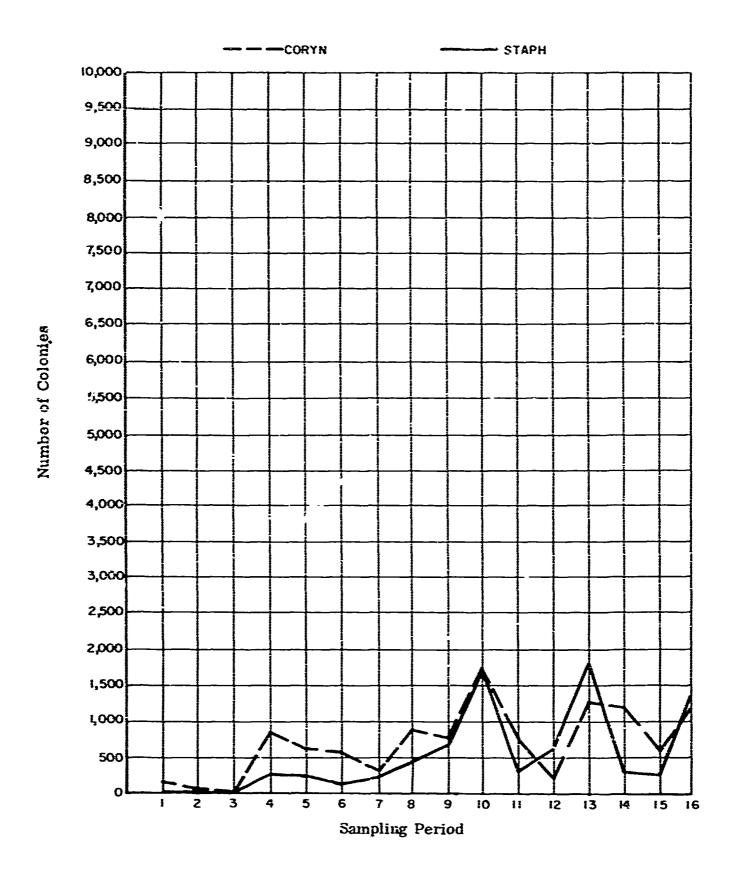


FIGURE 5 --- Continued EXPERIMENT VIII

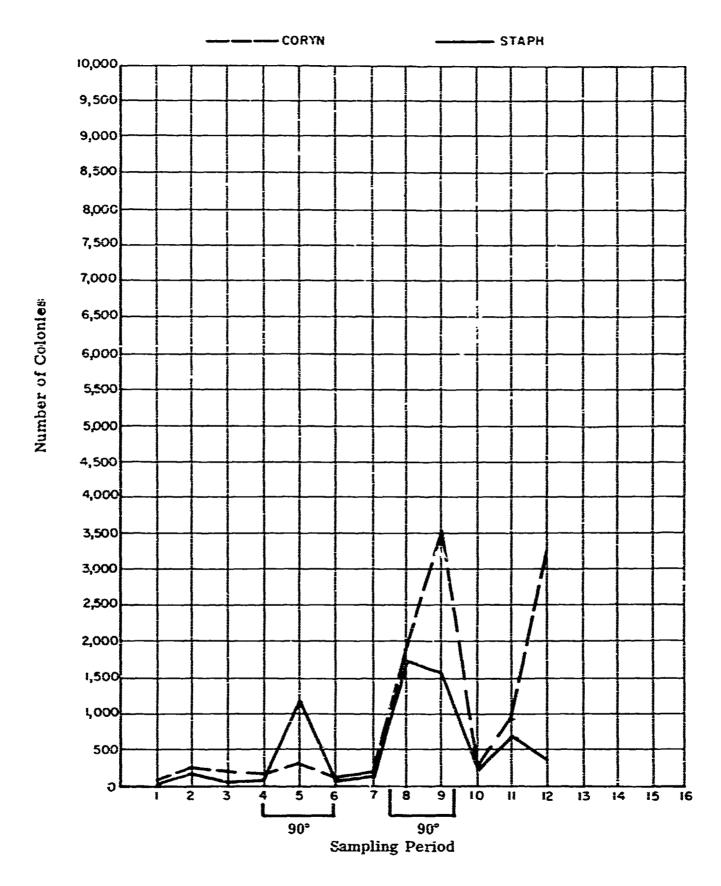


FIGURE 5 --- Concluded
EXPERIMENT IX

APPENDIX II TABULATION OF RESULTS

TABLE 1. SCHEDULE OF SAMPLES FROM THE BODY AREAS AND THE ENVIRONMENT EXPERIMENT V

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A AREAS INCLUDE: EAR, NOSE, THROAT, MOUTH, ANILLA, GROIN, GLANS PENIS
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ENVIRONMENTAL AREAS INCLUDE: TABLES, FORE AND AFT, FLYOR OF PERSONAL HYGIENE AREAS, BED
SUBJECTS 26 AND 27 WORE SPACE SUITS IN THE EVALUATOR
SUBJECTS WERE FED A LIQUID DIET FROM FEBRUARY 2 THROUGH 15.

TABLE 1 --- Continued
EXPERIMENT VIII

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A AREAS INCLUDE: EAR, WASE, MOUTH, THROAT, AULLA, GRUN, GLANS PENIS, ROOM AREAS B AREAS INCLUDE: SCALP, ETE, FOREARM, UMBLICTS, ANAL FOLD, TOES ELECTRODE AREAS SUMPLED WITH B AREAS EX AND AS SUBJECTS 39 AND 18 WORE SPACE SUITS. FOR EXTIRE PERIOD SUBJECTS 39 AND 18 WORE ELECTRODES ON THE CHEST SUBJECTS 30 AND 12 WORE ELECTRODES ON THE CHEST SUBJECTS WERE FED A LIQHID DIET FROM APSH 25 THROUGH MAY 11.

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TABLE 1 --- Concluded
EXPERIMENT IX

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TABLE 2. LIST OF PRIMARY CULTURE MEDIA FOR EACH BODY AREA

Aerobic Samples

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	Scalo	Ear	Eve	Note	Mouth	Gingival	Throat	AXIIIa	Forearm	Umbilicus	Groin	Glans pents	Anal fold	Feces	Toes	Sectrode
Actinomycete Agar (c)		×	×	×	×	×	×	×	×	×	×	X X X X X X X X X X X X X X X X X X X	×	×	×	×
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Blood Agar Plate (d) X X X	Chocolate Agar (d)	Rogosa's Media (d, e)	Deep Blood Agar X X X X Tubes	Dilution Sories L. 1. L. L. L. L. L. L. S.	Auto-Shakoa X XX XX XX XX XX X X X X X X X X X X	Brown Dates	Counting Plates

<sup>One time per week for body areas
Dental instruments used for obtaining sample
(a) Gall's Broth
(b) Gall's Agar</sup>

SCREEN TEST FOR PREDOMINATING OBLIGATE AND FACULTATIVE ANAEROBIC FECAL BACTERIA TABLE 3.

Type	Morphology	Agar Shake	Broth	Glucose	Sucross	Lactone	Dextrin	Blank	Litmus Milk	Oetain	ã
FA-1	stender gram positive rod singly and in chains; distinct rods uniformly spaced	very fine colonius; very anaerobic	heavy turbidity with alime	•	÷	÷	÷ č	•	selayed ARC* with protectyals	no liquefaction	0
				4. slimy sediment	1. allmy lediment	4+ elimy sediment	2+ elight slime	· 2		Acces of the second states of the second states of the second sec	
F.A-2	slender grum pus, "we .od in chalns, with tadp.,o	diffuse colonies very interobic	heavy with alime	4+ with silky turbidity	ti- with allky turbidity	3. with eilky turbidity	•		delayed ARC* with protectysis	no liquefaction	4.0
-				4. Himo	Dull I						-
F.A-3	medium to small gram diffuse growth; negative slougate pointed rods heavy gas; very no sire.	diffuse growth; heavy gas; very	beavy with alimy	4+ alimy sediment	4 * * * timy sediment	4. alimy acdiment	4. alimy sedimont	4. alimy sediment	delayed ARC* with protectysis and gas	no liquefaction	ام ت
				4+ black weddment	4+ black sediment	4+ black sediment	4 · black sediment	4. black sediment			
F.A-4	alender gram positive, sometimes silf'ily curved rod, singly	smali coloniss; very anastobic	moderate turbidity	4. elime	4 - ellmo	4+ alime	2. sediment	2. ecdiment	AHC* strong; delayed proteclysis	no Ikquefaction	ئ ئ
				4• alime	4- allme	4-slime	2. rediment	2. sediment			
FA-5	short, medlum slightly curved gram positive red, smgly; often developing	medium colonies, very anaerobic	moderate turbidity	4• #IIme	e. allmo	4. *15mo	4. slime	•	delayed AIIC* with protectiyats	no Mquefaction 5.3-	स.स.
				4+ allme	4+ nediment	4. sediment	4. alimo	•			
FA-6	gram positive medium rods, medium colonis tending to form diesters some very anacrobic	medium colonies,	clear allmy sediment	4+ altmo	4+ allma	4. elime	3• alime	• alight	ARC*	no Uguela.ton 6.6	ۍ ن
				4. alime	4. #] me	4• alimo	4. alime	· stight slime			

Results obtained under NASA Contract NASW-738 * Acid Rediced Curd

TABLE 3 --- Continued

Culture	Morphology	Agur Shake	Broth	Glucinie	Buorone	Lactore	Daxtrin	Blank	Litraus Milk	Golutin	ž
F.A-7	small gram negative stender rod, tendency towards	fine colonies; very angerobic	moderate turbidity	4. slima	4 · altma	4. alimo	•		AltC. delayed protectysts	no liquefaction	6.6
	bloolar staining		ell mo	4. slime	4. elime	4 - Almo	• #Ilme	•			
F.A-8	tiny gram negativo elondor rode, elightly curved	fine colonies; very anaerobic	clear with			. 6	6		partial reduction no liquefaction orange color	no liquefaction	э. *
F.A-9	medium to large pleomorphic gram positive rod in palra and short chains, chain has characteriate hooked or loop	haze; very anacrobic	moderate turbidity	3- nlight alline	3. slight slime	· .	• alime	clear with slight	delnyed ARC* with a protecty-	no liquefaction	1,0
	shape - older cultures form heavy gram , ositive aggregation			3. moderate alime	3+ moderate allme	3. altme	· alight alime	-	***************************************	***************************************	
FA-10	very small gram positive (inc colonius, rods in chains with a tondency very anacrobic or bipolar staining, some-	fine colonius. very annerobic	heavy with floceular sediment	4- Auffy sediment	4• fluffy medfment	4 · Auffy sediment	÷	ediment	delayed ARC*	no Itquefaction	£. 7
	times slightly pointed			4 - mediment	4. nedlment	4. sediment	4. sediment	4. nedlment		***************************************	
F.A-11	medium short gram positive rods, some slightly curved, older cultures tend tiwerd gram positive aggregation	fine colonies. vory anaerobic	honvy turbidity	3. 3. nedment	3. 3. sediment	3. sediment 3. sediment	3. 3. sediment	sediment clear	ARC* with proteolysis	no liquefaction	• ·
								with Linght Nedlinant			
FA-12	gram positive tiny poin wil rods in chains with many	mettum colonies very anaorobic with	honvy with slime	3. alime	3• niline	· with allme	4 alline	. Alme	delayed ARC* with protectyata	no Uquefaction	64 †
	coccold forms	slight gas		3. Alme	3+ elime	J. alline	• witme	· Alme			
		Annes 1							***************************************		

Type	Morphelogy	Agar Shako	Broth	Charten	Sucrone	lactone	Dextrin	Ulark	Litmin Milk	Getatin	Ē
F.A-13	namali gram negative cocci in fina colonica; henvy	fine colonies; henry gas, very anaerobic	mederate turbfollty	3. gue black elimo	J. Kas black allmo	I- kas black elime	I- gan black elime	3. gas binek elime	Reduced	no liquefaction	t- =
				3. black altine 3. black altine	3. black allme	3. black allme	3. black allme 3. black allme	3- black Alme			
FA-14	gram negative rods, long slender with gram positive areas	tiny colonies, very anaerobic with heavy gas	beavy turbidity kns	l- slight slime t- slight slime gas	t- elight elime	•	•	-	Reduced, whey carmelization	no fiquefa tion	
				÷	•	3. sediment	3- attme	3- elline			
FA-15	short fat gram negative rod, singly and in pairs; some	delnyed haze; heavy gan; very amorobio	henvy with alight alim	4. silkht silmv 4. silkht silme	4. slight altine		2. slight elime	-	delayed ARC* with whey	no Hquefuction	6.7
	with pointed and	:		4. slight alime 1. slight alime	1+ stight stime	1. black allme 4. allme	4. slime	_		grey sediment	_
FA-16	pleomorphic rved and some	haze with annerobic collar	heavy with silme	, curly allmo	· curly allme	· evely alimo	clear alime	,	A110.*	no Hqurfaction	ي ن
	tadpole forms			3- mlmin	3+ mlime	3+ alime	· Pline				
FA-17	large grain positive red singly and in pairs forming pallandes and V's	fine colonies very anservolo, sight gas, occasionally	alight with finely granular acdiment and alde growth	olear with finely granular sediment	clear with flooly granular sediment	clear with flooly granular rediment	clone with finely granular rectiment	clear with finely granular nediment	AIC with proleolysis	no Hquefaetion	6. 4
				clear with finely granular nedl ment	clear with finely granular sculinent	clear with finely granular sectiment	clear with finely granular accliment	clear with finely granular sectiment			
FA-18	gram positive tong stender rods, irregular staining	fine colemies, very amerobic	alight with	, moderate Alime	, modernte Altine	• moderate altine	noderate	· moder- ate slim-	ARC* delayed	no Rquefaction	n .
				i moderate Sitme	i moderate slime	i moterate	i muderate Almo	aty allthe			

Mon	Morphology	Agar Bhake	Broth	Olucope	Bucross	Lactore	Dextrin	Mank	Litrous Milk	Gelatin	豆
gram positive	pointed rode in	Kram pusitive pointed ruds in fine colonies pairs and short chains	heavy with altine	4. sline	4. allme	3. Alline	3 • #11ms	3+ elime	delayed ARC.	no Isquelaction	۲- ن
·				4. alln.	4. alime	4. # fm	4. alime	4. alime			
gram positiv	gram positive coccobacillus pairs and shains	medium colonies facultative anaerobic	clear with 3- granular growth on aided sediment sediment		3 - Krenular sediment	3- granular accliment	. granular accliment	-	AltC* with proteolysis	ao Itquefaction	ع و
				3. granular	3. granular sediment	3. granular sediment	3- granular acdiment	• with			
small round chains becon	small round couct in abort discrete colonies chans becoming less discrete with heavy gas with ago	discrete colonies with heavy gas facultative amerobic	moderate with 3. granul white sediment	L	3 · Kranular sediment	4. sedinent	÷	•	ARC* with proteolysis	no Uguefaction, 6, 4	→
: 				4. Kranular sediment	4 - granular nediment	4. granular agitiment	3. granular sediment	4			
Krain pools	grain profitive elongate discol	ting colonism tacultative anaerobia	modernte	4. #lins	4. allme	3. altme	3. alime	3- elime		no liquefaction 6. 5	6.5
				4. alime	4. alimo	4. allmo	4. alime	4 - alimo			
grain positive pattive pattine and able pleomorphic	grain positive diplococol in pairs and short chains; pleomorphic	fine colonien; facultative anaurohic	nioderate with flocusiar andin.ent	3 - floceular nediment	3. fleccular sediment	3. floceular sediment	3. floceular aedinent	• ediment	ARC* with alight no liquefnation protectives:	no liquefaution	.2.
				4. floceular	4. floceular nediment	4. floreular sediment	4. floceular sediment	. ediment			

TABLE 3 --- Continued

								
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(Jelatín	dack bottom to liquefaction	coupe Stein Derrick the Stein	hu liquetactem					
Lilmun Milk	delayed AHC" with proteolysis	ение изданиями м. го. за фактерия	ARC with protection	in den in in den der der Geben den der	reducied	A A A A A A A A A A A A A A A A A A A	delayed AIC* with slight protectysis	
Ulank	attme	4. 5187 15528 11110		· slight fleecelar		3. with altine	3 · with silms and gas	3. with altine sometime (ark
Dextrb	F with alline	4 · with black	4. with heavy	3. with heavy altine		3. with allting	4. with allma	de with altme nomelimes dark
Lactone	4. with alima	4. with binck alter		3 - with heavy altine	s. vich allmo	its with alline is with alline	4 · with alime	4 - with elitte sometimes ikrk
Ristran	4. with attenn	4. with black elime	4. with heavy alting	3+ with heavy attine	20 with elime	3- with alime animetimes dark	ani kas	4 · with alline sometimes dark
())ncont	4. with altern	4. with black elenc	t. with heavy	3. with heavy alline	2. vith altime	3 · w lth witters activations dark	4. with alline and gas	4. with altine sometimes dack
Mrcth	heavy flow-		moderate with to wit		muderate with 2: with aliane endined black addition fundamentation fluify		moderate with granular sedi- inent, nome-	
Agar Blake	fine colonica, heavy gas, very minerolity							
Morphology	short gram negative rad in pairs and chains, some		gram negalive abort rad in paire		ve pointed code		is pates some pleamorphio	
Culture	1-00		#-d0		660.3			

Hd	6.6 GDSa 6.2 to	4	5.9		8 9		
Gelatin	no Ilquefaction		ao liquefaction		no lique action black bottom		
Litmus Mick	ARC* with protoolysis		delayed ARC* with proteolysis		reduced		
Blank	2+ with granular sediment	3+ with slime or granular sediment sometime black	· with slimy sediment	3- with Lrown slime	3+ with heavy slime and gas	4 with heavy black sline	
Dextrin	4• with granular sediment or slime	4+ with slime or granular sediment sometimes black	3. with granular sediment	4 · with brown slime	3• with heavy slime and gas	4• with heavy black slime	
Lactose	4+ with granular sediment or slime	4+ with silme sord granular seculment secondiment black	3+ with granular sediment	4• with brown slime	4+ with slime and heavy gas	4• with heavy black slime	
Sucrose	4 • with granular sediment or siline	4+ with alime or granular sediment sometimes black	3+ with granular sediment	4• with brown slime	and heavy gas	4+ with heavy black slime	
Glucope	4+ with granular sediment or slime	4. with slime or granular sediment sometimes black		4• with brown slime	and heavy gas	4. with heavy black slime	
Broth	clear to moderate with balls of sediment		slight to 3: with moderate with granular slim; sediment		4) vith dark slime		
Agar Shake	small colonies, very amerobic		uny colonies, heavy gas, very anaerobic		tiny colonics, heavy gas, very anaerobic		
Morphology	gram 1 medlum rods in short small colonies, chains		gram negative short pieco- morphic rods in pairs some pointed		gram 1 short pleomorphic rods in pairs some pointed		
Type	GD-5 and GD-5a		GD-6		GD-1		

Hc	2. 0. 2. 30		0 3 % 0 %		ი, 3. ი. ♣ ი.				
Gelatin	no liquefaction		no liquefaction		no liquefaction				
Litmus Milk	delayed ARC.		ARC*; slight proteolysis		delayed ARC•				
Black	+ slime	• slime sometime black	· slime	+ slime	• alime	• slime			
Dextrin	· slime	2+ sitme sometimes black	· slime	4+ slime	2• slime	3+ slime			
Lactose	3• ellme	4+ slime sometimes black	3+ skme	4+ 8111110	3 · sediment	4. sediment			
Sucross	3+ 81!me	4• slime sometimes black	3+ alime	4+ slime	3+ sediment	4+ sediment			
Glucose	3. sline	4• allme Fometimes black	3+ slime	4. slime	3+ sediment	4+ sediment			
Broth	heavy with slime		moderate with		heavy with floccular sediment				
Agar Shake	tiny colonies with gae, facultativs anaerobic		tiny colonies with gas, facultative anaerobic		small colonies facultative anaerobic				
Morphology	gram positive cocci in short chains		gram positive cocci in short chains		gram positive cocci in chains small colonios incultative annerobic				
Type	. PS		8 <u>7</u>					 	

Results obtained under Contract AF33(815)-1814, "Blomedical Criteria for Personal Hygiene".

TABLE 3 --- Concluded

			·		 	
뛾	5.8		7.3			
Gelatin	no liquefaction		no liquefaction			
Likmus Milk	ARC•		reduction			
Billia	+ with elight elimo	+ with slight slime	1+ with granular clime	1 * with granuar		
Dextria	3+ with flocculant granules and side growth	3+ with flocculant granules and side growth	1+ with 1+ with 1+ with granular slime granular clime	1+ with 1+ with 1+ with granuar granuar granuar slime granuar slime		
Lactose	+ with slight slime	• with slight slime	1+ with granular slime	1+ with granular slime		
Sucrose	3+ with flocculant granules and side growth	3+ with flocculant granules and side growth	l+ with granular elime	1+ with granular alime		
Glucose	3+ with flocculant granules and side growth	3. with flocculant granules and side growth	- with - with granular ellme	1+ with 1+ with granular slime		
Broth	slight with ellmo (dark?)		sight with sline			
Agar Shake	vary fine colonies facultative anaerobic		small colonios facultative anaerobio			
Morphology	gram positive rods, some blightly curved, some ovoid in chains		gram positive rode some in pairs; various sizes			
Type	CN-1		CN-2			

Results obtained under Contract AF29(600)-4124, "Study of Bacterial Flora of Alimentary Tract of Chimpunzees,"

TABLE 4. PERSONAL HYGIENE PROTOCOL

Shaving Boy Wipes	Noth Wipes		Mater Mater	SITE N	Orl Hygane	Underweet	Otterwar	Ciahhr	KA-10 B-11
D. Wet and Dry None None	WA and Dry None Note	None	None	Klectric Tockb	Riserric Tookhbrush With Water	Pag.	Air Force Pilemas	White Socks, Low Speakers	X
Name : Mountach Clipped Name : :	Mountach Clipped Non	Cityped				# # # # # # # # # # # # # # # # # # #		- 4 % E &	1
None phise-Heat Wet and Dry None Riserric Tox	Wet and Dry Name Name Monatable Clipped Clipped Name Monatable Clipped Name	K. C. C. C. C. C. C. C. C. C. C. C. C. C.		Electric Tool Toolbbrush	Electric Toolbiruh With Water Toolbiruh With Rukke, Tip "	Loos Pating, Long	Air Force Pasmas	White Stells, Low Steakers (thanged) " (thanged) "	20. 20. 20. 20. 20. 20. 20. 20. 20. 20.
Name pHiso-Here 2 kinds Wet Wipse** (old) Name None Regular Tool (core)	A	A		Nepular Tool	Regular Toolbbruk and Water	Loss Friing, Long	Air Porce Palamas (changed)	Neavy 100% Cotton Books and Mocusains (changed)	Notes 2 Subjects / Shours day
None Ivery Soaps Dry, Wet With Water Mone Regular Tootharush With Each Mone Regular Tootharush With Each Mone None Regular Tootharush With Each Mone None None Regular Tootharush With Each Mone None Mone None Mone None Mone None Mone None Mone None Mone None Mone None Mone None Mone None Mone None Mone None Mone None Mone None Mone Mone None Mone Mone Mone Mone Mone Mone Mone M	Dry, was wun waser Mass	\$::::: X	 -	Regular Todibirus Edible Deetri	ion (1 gm)	Consection (changed	Chegands)	Meavy ; voff fraton flocks and Moosesins (changed) (changed)	Kons R subjects /24 hours day
Nose Breel Test I Dry. Wet With Water Nose Nose Regular Toothbrush With Destal Flose	Dry, Wes With Wester None	8::::: *		Regular Todibrush K	'IIA Dental Flore	Loose Pating, Long (changed)	Air t occe Palamas (Sanged)	Neavy 100% Cotton Socks and Mooyalins (chalged)	8.::;;

*** School of Avistics Medicine, Brooks Air Force Base, Sen Antonio, Tenns

Constrolled f citylly Tability
 Constrolled f citylity Tability
 Cod Type Wer Wipe: sedium Livryl suiths
 New Type Wer Wipe: Sers-art-cloded typhenescy-without wityl-climathyl-bensyl assummlum chitride
 Inp. Vill: Sersat tests performed in Subjects to and 21 on April 9 and 10 and May 17 and 18.
 Exp. Ki: Sersat test performed on Subjects 23 and 34 on July 20, 21, and 22 and July 21, 21, and 22 and July 21, 21, and 22 and July 21, 21, and 22 and July 21, 21, and 23 and July 21, 21, and 23

TABLE 5. FREQUENCY OF AREA SAMPLING

		Exper	iment Nun	nber		
Body Area	V*	VI*	VII*	VIII*	IX*	Total**
Scalp	4	4	3	3	3	17
Ear	14	16	16	16	3	65
Eye	14	4	3	3	3	27
Nose	14	16	16	16	12	74
Gingival					12	12
Mouth	4	16	16	16		52
Throat	14	16	16	16	12	74
Axilla	14	16	16	16	12	76
Forearm	4	4	3	3	3	17
Umbilicus	14	4	3	3	3	27
Groin	14	16	16	16	12	76
Glans penis	14	16	16	16	12	64
Anal fold	14	4	3	3	12	36
Feces	10 (2) men 11 (2) men	12 (2) men 14 (2) men	14	14	12+1	64-66
Toes	4	4	3	3	12	26
Electrode area				2	3÷1 ●	5(6)

Room Areas						
Tables						
Fore	20+1	16	19	16	13	84
Aft	20	16	19	16	13	84
Floor Personal Hygiene Area	20	16	19	16	13	84
Bed	20	16	19	16	13	84

^{• 1} extra sample taken

* Numbers represent one man, for total experiment multiply by 4.

** Totals should be multiplied by 20 for the total number of samples taken.

TABLE 6. TOTAL BACTERIAL PLATE COUNTS FOR ROOM AREAS (EXPOSED 30 MINUTES)

EXPERIMENT V

5 7 78 69 50 50 50		Cont	Controlled Activity Facility	tivity F:	acility		Pre-Entry					
3 14 32 68 45 1 7		Pre-Entry (Residual Count)		Post-1	Sntry		Evaluator (Residual Count)		ធ៌	Evaluator	_	
3 14 32 68 45 1 7 Personal 2 33 62 83 155 2 5 Personal 2 0 56 102 100 0 5 Area 3 6 9 32 18 0 7				23	က	ਦਾ		ည	9	Ł	8	6
Dersonal 2 33 62 83 155 2 5 Personal 2 0 56 102 100 0 5 Area 3 6 9 32 18 0 7	Tables Fore	က	14	32	89	45	H	2	78	127	021	144
or-Personal 2 0 56 102 100 0 5 lene Area 3 6 9 32 18 0 7	Aft	01	33	62	83	155	হয়	၁	69	180	220	175
3 6 9 32 18 0 7	Floor-Personal Hygiene Area	2	0	56	102	100	0	5	50	161	100	118
	Bed	3	9	6	32	18	0	7	86	124	104	113

			Eva	Evaluator				Pre-Entry (Residual Count)	Controlled Activity Facility	olled rity lity
	10	11	12	1.3	14	15	16		17	18
Tables Fore Aft	250 195	250 175	160 219	125 100	115 126	120 166	32 160	1 0	78 89	60 63
Floor-Personal Hygiene Area	253	250	75	N.S.	250	104	26	0	09	29
Bed	350	250	135	N.S.	110	200	135	2	24	41

N.S. = no sample

TABLE,6 --- Continued

EXPERIMENT VI

	CA	CAF*								
	. \$	Pre-	Post -	Pre-Entry Evaluator (Residual Count)			Evalı	Evaluator		
	Fre-l'reatment	Entry	Entry 2	ო	4	2	9	2	8	6
Tables Fore Aft	33 14	00	31	81 132	29 9	19 39	39 175	61 77	86 104	125 131
Floor-Personal Hygiene Area	49	ဗ	25	253	2	9	37	36	47	7.7
Bed	15	0	24	101	п	21	30	40	111	11.5

			Evaluator			Controlled Activity Facility	lled acility
	10	17	12	13	14	15	16
Tables Fore Aft	171 93	148 133	175 220	136 230	167 93	150 150	205 > 250
Floor-Personal Hygiene Area	31	49	49	44	53	125	222
Bed	145	106	145	155	127	250	>20.5

* CAF = controlled activity facility

TABLE 6 --- Continued

EXPERIMENT VII

	Ö	CAF*									
	Pre-Entry (Residual Count)	Post-	Post-Entry	Pre-Entry Evaluator (Residual Count)			Evaluator	lator			
		1	23		3	4	5	9	7	8	6
Tables Fore	4	10	30	တ	6	19	31	31	96	53	7.0
Aft	1	13	40	ဗ	21	29	21	53	30	41	45
Floor-Personal Hygiene Area	4	₹ 2 1	14	1	25	35	40	38	72	69	- 4
Bed		6	34	4	œ	29	36	13	32	40	27

			Evaluator	or		Pre-Entry (Residual	CAF	E
	10	11	12	13	14	Count)	15	16
Tables Fore	132	49	64	54	72	82	157	119
Aft	114	59	53	76	84	62	124	68
Floor-Personal Hygiene Area	111	69	25	96	124	9	145	263
Bed	114	47	103	52	55	83	79	101
hammen management has created and continued by the property of	**************************************	**************************************						

*CAF = controlled activity facility

TABLE 6 --- Continued

EXPERIMENT VIII

	၁	CAF*									
	Pre-Entry (Residual Count)	Post Entry	Entry	Pre-Entry Evaluator (Residual Count)*			Evaluator	ator			
			2		3*	4	2	9	L	8	9
Tables Fore	0	41	67	14		2	ß	10	20	35	42
Aft	0	48	56	4		29	137	82	433	145	297
Floor-Personal Hyglene Area	2	15	27	38		12	30	51	244	53	120
Bed	Û	35	43	12		55	63	64	123	09	80

	The transport of the state of t							
			Evaluator	or		Pre-Entry (Residual Count)	Acti Faci	Controlled Activity Facility
	10	11	12	13	14		1.5	16
	6	85	55	61	10	Н	09	22
	390	153	392	203	220	н	39	137
1	69	49	122	165	140	က	55	212
•	29	83	114	151	131		82	46
Í	THE PERSONAL PROPERTY OF THE PROPERTY OF THE PERSON OF THE							

*Taken in chamber prior to third sample *CAF = controlled activity facility

TABLE 6 --- Concluded

EXPERIMENT IX

Pre-Entry (Residual Count)	Entry						
	unt)	Post-Entry			Evaluator		
	`	-	2	3	4	5	9
Tables 2 Fore	81.6	80 0	200	178	68	88	213
		6	213	401	244	no ,	7 P.
Floor-Personal 9 Hygiene Area	G	19	46	58	383	170	178
Bed 0	0	10	108	113	153	43	153

						CAF	
			Evaluator			Pre-Entry (Residual Count)	
	7	æ	6	10	11		12
Tables Fore Aft	449 288	212 198	195 1 0 8	341 251	239 192	2	131 157
Floor-Personal Hygiene Area	416	285	350	84	104	1	82
Bed	140	107	103	21.6	96	0	64

*CAF = controlled activity facility

TABLE 7. TOTAL BACTERIAL COUNTS BY BODY AREA FOR EACH CULTURING PERIOD

Body								Š	Sampling	g Period	7						
	Dilution	1	2	3	4	5	6	7	8	8	10	11	12	13	14	15	16
A Areas	(
	10_3	0	0	0	0	11	0	အ	0	O	0	2	10	87	0		
Еуе	10 ⁻³	100	0	1	7	Mold	0	Mold	H	0	0	0	0	0	0		
Noве	10 ⁻³	51	33	Mold	1	33	85	300	200	250	150	110	163	120	130		
Throat	10-4	500	0	65	0	10	170	300	200	190	200	122	128	200	200		
Axtlla	10_3	20	8	1	0	150	33	3	12	ည	25	15	18	13	18		
Umbilicus	10-3	0	25	1	0	Mold	1	1	0	0	2	С	0	0	0		
Grotn	10-4	500	500	51	200	200	300	320	500	200	500	250	140	115	250		
Anal fold	10-4	300	500	10	10	20	82	23	5	75	82	13	200	80	06		
Fесев	10_2	200	78	80	7	31	18	6	5	27	20	14	NS	NS	NS		
															 		
B Areas	5								•								
Scalp	10-3		1	ဗ						1.50				-	Moid		
Mouth	10-5		250	500						100					230		
Forearm	10-3		Mold	2						1					2		
Glans Penis	10-4		200	0						83					0	1	
Тоев	10-3		92	-					-	150							
										·							••••••

NS = No sample

TABLE 7 --- Continued

Subject 18

								Sa	Sampling Period	Perio	ਹ ਹ						
Area	Dilution	1	2	3	Ą	3	9	£~	æ	6	10	11	12	13	14	15	16
A Aroas Ear	10-3	250	300	80	25	2	50	0	50	150	Ø	4	47	110	36		
Eye	10-3	1	30	Mold		38	23	14	6	0	1	0	0	0	4		
Nose	10-3	250	150	10	0	75	3	Mold	35	150	150	55	SN	56	47		
Throat	10-4	200	200	150	0	0	2	1.50	900	160	150	264	61	138	56		***************************************
Axilla	10-3	16	1	1	0	အ	9	3	7	8	7	5	5	Mold	0		
Umbilious	10-3	0	200	13	0	100	151	75	54	283	185	19	22	×	123		
Grotn	10-4	200	200	09	4	0	250	100	58	100	100	240	310	270	250		
Anal fold	10-4	009	250	20	13	7.6	10	19	17	380	19	4	7	40	18		
Foces	10 <u>-6</u>	250	150	155	10	120	58	21	83	8	45	NS	NS	NS	NS		
В Агоав																	
Soalp	10-3		250	20						83			Ì		250	Î	
Mouth	10-6		500	009						150					126		
Foregrm	1.0-3		0	ဆ						တ					2		1
Glans pents	10-4		600	10						12					0		
Тоов	10-3		250	0.4						2					20		:

X = Spreador NS = No samplo

TABLE 7 --- Continued

Subject 19

Sampling Period	7 8 9 10 11 12 13 14 15 16		2 Mold 2 22 7 9 116 200 60	0 3 28 0 0 10 2 0 0	0 13 45 90 15 115 87 115 20	5 10 250 500 200 340 74 200 130	30 300 150 81 10 2 1 18 23 32	55 0 NS 8 4 2 5 X 0	00 30 71 300 28 146 10 X 0	50 27 43 14 182 15 150 220 130	88 8 32 4 6 3 NS NS NS		1 x	120	η 1	4 Mold	
	15																
	14		09	0	20	130	32	0	0	130	NS		×	227	7	Mold	0
	13		200	0	115	200	23	×	×	220	NS						
	12		116	2	87	74	18	သ	10	150	NS						
	11		6	10	115	340	21	2	146	15	3						
-	10		7	0	15	200	10	4	28	182	9	•					
Perío	6		22	0	96	200	81	8	300	14	4		1	120	υ	4	5
mpling	8		2	26	45	250	150	SN	7.1	43	32						
Sa	7		Mold	3	13	10	300	0	30	27	8						
	9		12	U	0	5	06	55	200	250	1.28	-					
	5		1	П	10	0	200	37	0	65	110		-				
	4		T	0	0	0	0	0	10	09	54						
	3		Mold	Mold	10	30	10	0	02	36	က	<u> </u>	2	200	2	100	10
	2		200	4	20	13	100	35	300	300	140		23	300	1	500	300
	1		250	0	200	0	250	100	009	32	150						
	Dilution		10-3	10-3	10-3	10-4	10-3	10-3	10-4	10-4	10-5		10-3	10-5	10-3	10-4	10-3
D 24:	Area	A Areas	Ear	Eye	Nose	Throat	Axilla	Umbilicus	Groin	Anal fold	Feces	B Areas	Scalp	Mouth	Forearm	Glans penis	Toes

X = Spreader NS = No Sample

TABLE 7 --- Continued

Subject 20

	16												Ī				
-			-	\dashv								 	-	+	+		
	1.5											 ·	4	_	_		
	14		0	0	10	1	81	818	0	7	SN		7	34	4	ဗ	14
	13		100	0	1	145	10	X	×	18	NS						
	12		12	0	0	116	200	0	5	3	NS						
	11		134	0	100	150	20	0	20	84	SN						
70	10		142	0	43	126	165	0	23	11	120						
Sampling Period	6		09	0	3	350	400	09	2	15	90		1	79	1	က	195
mpling	8		30	0	8	250	56	4	250	Mold	89						
Sa	7		Mold	0	2	85	×	7	2	85	48						
	9		က	0	1	45	200	1	250	45	1						
	5		10	0	13	5	200	0	0	35	200						
•	4		ເດ	0	0	0	61	0	4	150	200						
	3		150	Mold	Mold	125	141	0	4	48	150		0	350	0	3.0	79
	2		200	0	20	30	250	1	300	2	180		63	300	0	200	400
	1		200	19	300	200	106	9	500	20	200						
	Dilution		10-3	10-3	10-3	10-4	10-3	10-3	10-4	10-4	10-5		10-3	10-5	10^{-3}	10-4	10-3
Dodie	Area	A Areas	Ear	Eye	Nose	Throat	Axilla	Umbilicus	Groin	Anal fold	Feces	B Areas	Scalp	Mouth	Forearm	Glans	Toes

Spreader No Sample

TABLE 7 --- Continued

Subject 21

								٦							1		
	16		69	tntc	tntc	279	tntc	thtc	7			* نفذ الخبيج					
	15		400	88	330	114	tntc	mtc	260			2	0	2	7	500	thic
	14		740	629	96	42	tntc	tntc	342	38							
	13		472	400	161	174	tmtc	tntc	92	CH							
	12		401	401	133	170	tntc	tntc	52	12							
	11		350	147	225	tntc	tntc	tntc	64	30							
70	10		009	200	259	184	tntc	tntc	52	73		വ	0	5	0	255	tmtc
Sampling Period	6		125	408	113	116	454	tntc	4.6	6							
mpling	8		106	tntc	250	125	tntc	tntc	139	22							
Sa	7		276	528	tntc	93	tntc	tntc	56	15							
	9		122	397	300	131	300	23	80	99							
	5		40	tntc	tntc	262	th	tntc	9	26							
	4		29	315	205	29	65	1	H	10							
	3		46	0	303	89	300	328	0	15							
	2		402	П	353	138	0	57	н	185		0	1	0	0	57	tntc
	1		309	102	802	89	300	435	26	35		r.	0	0	11	400	300
	Dilution		10-3	10-3	10-5	10-4	10-3	10-4	10-4	10-5		10-3	10-3	10-3	10-3	10-4	10-3
	Body Area	eas	Ear	Nose	Mouth	Throat	Axilla	Groth	Glans penís	Fесев	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Scalo	Eye	Forearm	Umbilicus	Anal fold	Toes

tate = To numerous to count

TABLE 7 --- Continued

Subject 22

			T	\neg				T		<u> </u>			T	T			7	
	16		_															
	15	,	0	42	230	300	500	Intc	198				134	0	0	268	518	tntc
	14		9	tmtc	09	tntc	665	tntc	114	225								
	13		0	196	21	190	tntc	tntc	174	118								
	12		2	212	260	521	148	tntc	tntc	tntc								
	11		٦	183	125	200	4	tmtc	300	218								
T	10		အ	200	211	263	30	tntc	111	tntc		,	9	-	0	7	213	tntc
Sampling Period	6		80	403	tntc	133	19	429	46	275								
mpling	∞		1	200	tntc	200	116	64	125	133								
Sa	2		13	200	tntc	250	72	tntc	267	300								
	9		0	500	320	198	400	232	262	308								
	5		n.g.	340	tntc	tntc	2	tntc	268	tntc								
	4		1	2	29	37	0	1	0	318	_							
	3		0	300	209	290	37	229	355	381								
	2		300	75	400	009	11	186	202	52			5	Û	0	0	tntc	0
	1		0	351	252	350	91	113	115	187			11	1	28	15	455	220
	Lilution		10-3	10-3	10-5	10-4	10-3	10-4	10-4	10-5	***************************************	ć	10-3	10-3	10-3	10-3	10-4	10-3
4	Body Area 1	A Areas	Ear	Nose	Mouth	Throat	Axilla	Groin	Glans	Feces		B Areas	Scalp	Еуе	Forearm	Umbilicus	Anal fold	Toes

To numerous to count No growth tntc =

n. g. =

TABLE 7 --- Continued

Subject 23

		16	0	907	11	929	331	38	325	106								
		1.5	G	23	92	19	363	500	335	15			ဥ	۷	က	11	800	n.s.
		14	(18	46	270	340	217	875	100	32							
		13	i	7.7	13	tntc	178	102	575	247	26							
		12		165	5	540	182	363	tntc	128	228	 						
		11	. (18	20	190	250	009	tmtc	tntc	34							
		10	(42	27	tntc	436	140	tntc	56	23		42	35	12	0	589	n. s.
6	Sampling Feriod	6		21	54	450	tntc	250	tntc	40	130	 						
	mpling	8		45	77	900	500	750	tntc	116	5	 						
d	S.	7		33	92	900	105	200	435	106	n. g.							
		9		9	53	250	328	250	240	165	114							
		5		0	32	tntc	tntc	268	tntc	56	99							
		4		0	9	130	96	0	5	0	35							
		3		0	4	312	750	0	61	95	9		•					
		2		0	10	163	tntc	5	247	4	n.g.		Н	0	2	15	52	75
		1	4	0	1	200	305	3	835	54	41		83	0	13	17	19	93
		Dilution	c	10-3	10-3	10-5	10-4	10-3	10-4	10-4	10-5		10-3	10-3	10-3	10-3	10-4	10-3
	Body		A Areas	Ear	Nose	Mouth	Throat	Axilla	Groin	Glans	Feces	B Areas	Scalp	Eye	Forearm	Umbilicus	Anal fold	Toes

To numerous to count No growth No sample intc = n.g. = n.s. =

TAPLE 7 --- Continued

Dod.								S	Sampling	g Period	q						
Area	Dilution	1	2	3	4	5	9	7	80	G	10	11	12	13	14	15	16
A Areas																	
Ear	10-3	ຄ	15	7	0	2	1	0	360	4	22	10	3	0	58	8	0
Nose	10-3	141	85	243	11	54	72	150	69	145	166	118	195	7.1	210	98	130
Mouth	10-5	27.4	358	507	200	tntc	503	tntc	248	162	524	200	258	86	52	84	310
Throat	10-4	1000	905	400	114	tntc	550	148	511	tntc	390	300	185	316	257	550	56
Axilla	10-3	200	250	19	80	16	450	312	200	tntc	550	tntc	650	625	tntc	650	tntc
Groin	10-4	7.1	840	1150	2	45	80	374	tntc	193	525	800	258	94	277	98	165
Glans	10-4	92	109	675	0	2	36	47	500	36	40	225	220	75	448	161	22
Feces	10-5	125	72	33	217	42	70	100	n.s.	2000	500	206	n.s.	33	480		
																	
B Areas	;															:	
Scalp	10 ⁻³	10	n.g.								24					42	
Eye	10-3	9	13								3					18	-
Forearm	10-3	53	1								1					7	
Umbilicus	10-3	0	1								0					90	
Anal fold	10-4	230	tntc								66					500	
Toes	10-3	350	tntc								n.s.					n. 6.	

tntc = To numerous to count n.g. = No growth n.s. = No sample

TABLE 7 --- Continued

	16		4600	153	127	19	30	1350	15			81	0	0	نى :	tntc	tntc
							0		- 2		 			-		<u>B</u>	B
	15		2980	8.00	146	81		2040	12								
	14		8580	350	46	206	10	1990	421	7							
	13		5000	300	3	2	10	3540	147	9							
	12		1020	490	17	30	23	1310	118	17							
	11		3710	250	215	2	12	158	194	17							
T	10		2200	200	185	2400	580	10 6 0	35	4							
Sampling Period	6		1530	150	83	1070	2700	241	3	2							
amplin	8		5000	1590	128	231	640	613	16	41		0	0	3	0	551	tntc
Š	7		200	268	181	200	2	290	28	Ţ							
	9		thtc	465	54	190	200	thtc	21	2							
	ည		350	15	30	126	44	55	က	т.							
	4		63	78	80	500	9	37	14	2							
	အ		<u>б</u>	13	75	380	2	0	0	, - 1							
	2		42	77	က	159	17	33	2								
	1		7	3	96	439	17	0	0	2		2	0	0	0	500	943
	Dilution		10-3	10-3	10-5	10-4	10-3	10-4	10-4	10-5		10-3	10-3	10-3	10-3	10-4	10-3
. pod:	Area	A Areas	Ear	Nose	Mouth	Throat	Axilla	Groin	Glans pents	Fесев	B Areas	Scalp	Eye	Forearm	Umbilicus	Anal fold	Toes

tntc = Too numerous to count Note: 0.1 cc from these dilutions spread on plate

TABLE 7 --- Continued Subject 26

outs 1 2 3 4 5 6 7 8 4 10 outs 10-3 1000 thtc thtc 540 thtc 2000 500 690 3160 n 10-3 1000 thtc thtc 204 6 256 38 78 123 69 nt 10-5 67 24 15 12 5 7 12 22 27 136 nt 10-4 802 174 140 220 159 X 204 306 210 112 nt 10-4 802 174 140 220 159 X 204 306 210 306 240 242 nt 10-4 0 550 470 700 700 700 700 700 700 700 700 700 700 700 700 700 700 700 700 <th>Dod:</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Sa</th> <th>mpling</th> <th>Sampling Period</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Dod:								Sa	mpling	Sampling Period							
S 10-3 1000 thtc thtc thtc thtc thtc 250 500 500 500 500 3160 10-3 10-3 155 2 94 6 256 98 78 123 69 10-5 67 24 15 12 5 7 12 22 27 196 10-4 802 174 140 220 159 X 204 306 210 112 69 10-4 802 174 140 220 159 X 204 306 210 112 69 10-4 802 174 140 220 448 214 1000 thtc thtc 1120 </td <td>Area</td> <td>Dilution</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>9</td> <td>7</td> <td>8</td> <td>s:</td> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>1.6</td>	Area	Dilution	1	2	3	4	5	9	7	8	s:	10	11	12	13	14	15	1.6
10-3 3 155 2 94 6 256 98 78 123 69 10-5 10-5 67 244 15 12 15 22 27 196 10-3 10-4 802 174 140 220 159 X 204 306 210 1120 1120 10-3 10-4 10 10 10 120 242 242 10-4 10-4 10 10 120 242	A Arcas Ear	10-3	1000	tntc	tnte	tntc	540	tntc	2000	200	069	3160	440	tntc	3000	2000	5410	1,4400
10-5 67 24 15 12 5 7 12 22 27 196 10-4 802 174 140 220 159 X 204 300 210 1120 10-3 1 400 5 2 448 214 1000 120 540 242 10-4 0 550 470 700 4ntc tntc Nose	10-3	3	155	2	94	9	256	86	78	123	69	87	63	334	121	1.7	54	
10 ⁻⁴ 802 174 140 220 159 X 204 306 210 1120 10 ⁻³ 1 400 550 470 700 4ntc 4ntc 1500 4ntc 4ntc 16700 10 ⁻⁴ 0 550 470 700 4ntc 4ntc 1500 4ntc 4ntc 16700 10 ⁻⁴ 0 17 6 42 1 8 18 59 44 22 10 ⁻⁵ 1 1 5 1 3 1 1 1 1 1 10 ⁻³ 0 1 1 1 1 1 1 1 1	Mouth	10-5	29	24	15	12	5	2	12	22	27	196	55	75	17	19	815	20
10-3 1400 5 448 214 1000 120 540 242 10-4 0 550 470 700 tntc	Throat	10-4	803	174	140	220	159	×	204	300	210	1120	1070	420	02	2780	420	136
3 10-4 0 550 470 700 tntc tntc 1500 tntc tntc 16700 10-4 10-5 1 1 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Axilla	10-3		400	ပ	2	448	214	1000	120	540	242	3100	180	7920	5470	7500	6840
s 10 ⁻⁴ 0 17 6 42 1 8 18 59 44 10 ⁻⁵ 1 1 3 1 1 1 1 1 as 10 ⁻⁵ 1 1 3 1 1 1 1 1 as 10 ⁻³ 0 1 1 3 1	Groin	10-4	0	550	470	100	tntc	tntc	1500	tntc	trite		15300	4400	6820	1160	740	670
angle of the state of the	Glans penis	10-4	0	17	9	42	1	ဆ	18	59	44	22	62	26	190	820	34	89
10 ⁻³ 0	Feces	10-5	1	1	5	1	3	1	1	1	1	1	0	1	2	5		
10 ⁻³ 0																<u> </u>		
10 ⁻³ 0 10 ⁻³ 0 10 10 ⁻³ 0 10 10 ⁻³ 0 10 ⁻³ 10 ⁻⁴ 201 10 ⁻³ 500	B Areas	ţ																3
10 ⁻³ 0 0 1 10 ⁻³ 0 1 10 ⁻³ 0 1 10 ⁻³ 0 1 10 ⁻⁴ 201 10 ⁻⁴ 201 10 ⁻³ 500	Scalp	10-3	0							က					1			340
licus 10-3 0 licus 10-4 201 lon-3 500	Eye	10-3	0															
licus 10-3 0 fold 10-4 201 10-3 500	Forearm	10-3	0							0								48
fold 10 ⁻⁴ 201	Umbilicue	L	0							0								ကျ
10-3 500	Anal fold	L	201							51								tinte
	Toes	10-3	500							2300								tntc

X = Spreader tnte = Too numerous to count Note: 0.1 cc from these dilutions spread on plates

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TABLE 7 --- Continued

Body				***************************************				Sa	Sanipling Period	Perio	T						
Area	Dilution	1	2	3	4	5	9	7	80	6	10	11	12	13	14	15	16
A Aroas	10-3	46	284	tuto	tuto	tnto	tuto	tate	4800	4350 14180	14180	39600	14800	14800 36700	19800	25000	28000
Nose	10-3	163	308	217	468	218	tmtc	1100	910	1720	980	1003	610	1700	580	74	92
Mouth	10-5	37	24	157	1.48	13	6	53	145	100	322	63	33	102	86	53	249
Throat	10-4	1600	346	210	143	336	329	116	389	1370	2970	1440	1440	20	770	930	180
Axilla	10-3	သ	154	υS	27	56	149	850	1440	75	2670	340	70	730	490	509	340
Groin	10-4	0	83	*	15	tntc	tntc	632	376	260	3600	2100	1180	850	574	1240	240
Glans penis	10-4	0	0	22	50	0	51	286	390	2700	1280	460	113	876	452	647	181
Feces	10-5	3	156	360	432	270	520	1600	70	308	140	152	306	7.1	166		
B Areas																	
Scalp	10-3	=======================================							143								52
Eye	10-3	0							1								0
Forearm	10-3	0							1								0
Umbilicus	10-3	1							0								110
Anal fold	10^{-4}	430							330								310
Toes	10-3	500							2000								tintc
	A	L		¥	T		**************************************			Ŧ	¥	·				· ************************************	

tntc = Too numerous to count.

Note: 0.1 cc from these dilutions spread on plate

TABLE 7 --- Continued

n jooga								Sa	Sampling	; Period	q						
Area	Dilution	1	2	3	4	5	9	7	8	6	10	11	12	13	14	15	16
A Areas	10-3	C	α	c	· ·	ť	U	40	56	r.	r.	214	06	20	10	0	N
Nose	10-3	2 23	17	19	65	104	327	41	83	1470	200	15	90	30	46	35.2	13
Mouth	10-5	77	30	7.0	10	24	27	28	160	266	69	297	62	30	202	191	425
Throat	10-4	270	357	220	60	200	293	83	623	730	446	750	700	800	382	2120	609
Axilla	10-3	0	229	8	509	800	tntc	800	70	648	1820	670	122	199	3700	720	1.500
Groin	104	0	3	0	39	800	240	231	355	441	217	123	7.1	2270	410	250	450
Glans	10-4	0	0	()	ន	0	3	16	2	31	9	12	П	9	18	4	ထ
Foces	10-5	1	-4	1,	20	54	97	11	0.2	45	2	2	4	15	4		
B Areas	,						_										
Scalp	10-3	1							4								4
Eye	10-3	3							J.								0
Forearm	10-3	1							, -i								4
Umbilicus	l	1							0								0
Anal fold	1	4							100								62
Toes	10-3	1400							1700								mtc
												,		T		——————————————————————————————————————	/m

tntc = Too numerous to count Note: 0.1 cc from these dilutions spread on plate

TABLE 7 --- Continued

Subject 29

						,	Sa	mpling	Sampling Pertod	71						
	1	2	3	4	5	9	7	8	6	10	11	12	13	14	15	16
	1500	320	380	130	230	780	70	440	830	460	79	660	6	77	180	360
10-4	260	39	448	520	500	152	220	37	147	182	400	230	940	1181	131	260
10-4	9100	23000	1160	8600	2900	14700	16100	006u	1700	6100	1080017800	17800	16200	13700	6700	790
	23500	320	060 T	210	2600	2210	20000	250	06	3730	530	2140	1640	614	2690	1230
10-4	325	5030	Ţ	5160	5420	2520	1140	5520	3780	5840	3350	1130	5490	2140	5230	3500
10-4	105	840	480	5500	9100	800	3500	9800	5280	tntc	tntc	tntc 13300	65000	90100	3550035000	35000
10-4	2	0	Þ	1190	120	52	136	3030	320	4750	189	191	3400	566	74	650
10-4	0	200	1200	5500	400	4000	4100	006	400	200	2200	200	100	I		
10-4	35								48	-						31
10-4	0								0				!			0
10-4	23								દા				i			80
10-1									35							120
10-4	5100								32900							16200
10-4	5400								ž X						೧೦೦೦ ಇ	80000 22100

Incubator not working properly at 10th sampling period for feces, 11th for body areas. Liquid diet started 0800 Tuesday, Apr. 27, date for feces sample #8

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TABLE 7 --- Continued

Subject 30

								Sa	Sampling	g Period	q						
Area	Dilution	7	2	3	4	5	9	7	ဆ	9	1.0	11	12	13	14	1.5	16
A Arous																	
Ear	10-4	0	Ţ	0	Ţ	0	0	0	જ	1	0	-	20	3	1	230	0
Nose	104	420	89	226	285	33	10	43	222	22	52	34	33	328	120	202	318
Mouth	10-4	4200	2300	3700	1900	3400	1390	4600	7800	7800 14000	3600	3300	24700	1200	24500 36700	36700	1700
Throat	10-4	26400	0800	8700	6800	610	270	1750	100	2560	243	192	129	5510	1230	4720	3840
Axilla	10-4	2220	3620	Ω	1790	3000	3750	80	181	7060	2880	3960	3500	3370	4400	tntc	1700
Groin	1.0-4	507	5.10	1610	1980	1430	1864	1340	1050	7000	3500	3350	1150	4900	4900 Contan 4900		46400
Gluns	10-4	107	48	0	2330	2830	350	850	2130	1570	4400	820	460	2850	2900	4.70	3800
Fecus	10-1	200	300	100	100 23400	1700	12200	Skdp-	16800	006	200	2200	1400	4000	300		
																	
B Aroas	•																Ç
Scalp	1001	S								01/						İ	DC
Eyo	7,01	บ			·					0							9
Forearm	10-4	0								0			1			İ	9
Umbillous	10 "4	9								7							٥١
Anal fold	10-4	4400								11000							40800
Toos	701	7250								30500					•		5900

Incubator not working proporty at 10th sampling parted for feeds, 11th for body areas. Liquid diet started 0800 Tues., Apr. 27, date for feeds sample #8

TABLE 7 --- Continued

Subject 31

								Sa	mpling	Sampling Period	70						
Body	Dilution	7	2	အ	4	5	9	7	∞:	6	10	11	12	13	14	15	16
A Areas												*********					
Ear	10-4	5020	613	565	3200	5020	630	4700	5550	6400	7740	270	73	380	1500	20	1340
Nose	10-4	10	140	20	58	20	5	73	23	75	54	99	350	370	210	220	470
Mouth	104	15400	15400 12200	1200	906	1450	1.9600	4600	20500	49000	39100	2000	36000	54000	30500	2092	17000
Throat	10-4	1950	5400	390	3700	2200	006	7200	2500	12500	1420	5500	2,420	5550	6850	5460	2900
Axilla	10-4	630	3640	200	127	1820	840	9800	5560	3070	3530	4380	2000	4910	1780	4850	2750
Groin	10-4	006	2010	1870	2510	1990	0261	4960	8440	8000	8250	3800	1900	3850	3500	22000	36800
Glans	10-4	339	308	0	730	260	430	880	390	3750	6400	1800	400	5750	1700	2250	5100
Reces	10-4	400	L	2000	2000 18500	19200	00008 00	0066	2600	1800	700	12400	300	700	1400		
			<u> </u>														
B Areas																	,
Scalp	104	89								7							4
Eye	10-4	1								0							0
Forearm	10-4	1								0							35
Umbilicus		5								72							225
Anai fold	<u> </u>	1400								5200							11000
Toes	10-4	8500								8700							00009

Incubator not working properly at 10th sampling period for feces; 11th for body areas *Liquid dlet started 0800 Tucs. Apr. 27, date for feces sample #8

TABLE 7 --- Continued

Subject 32

	16	0000	4000	260	1830	390	5250	3900	360			,	20	0	0	20	400	37500
			4	<u>~</u>		0		_					1	-	-	_		37
	15	** **	OTT	168	7700	480	9500	1330	570									
A COLUMN TO SERVICE STATE OF THE SERVICE STATE STATE OF THE SERVICE STATE OF THE SERVICE STATE STATE STATE STATE O	14	2	07.0	80	3550	1150	3300	1200	1020	100								
	13		230	180	2400	2370	5840	2400	009	100								
	12	Č	53	37	6400	1410	6800	3500	2200	2900								
	11	į	41	78	25500	351	3400	5580	1400	1400								
P	10	(200	150	2500	940	4750	5500	3580	7100								
Sampling Period	6	(3	101	2800	280	1650	3260	342	1800			24	0	0	45	10300	1200
guildm	8		120	120	2560	21000	2860	3500	175	2400								
Sa	7		22	130	9400	1700	2800	1590	330	11100								
	9		1240	153	11800	280	0099	3120	1740	10200								
	5		270	155	830	740	4520	1690	1960	1400								
	4		620	450	12100	100	220	3420	3720	11700								
	3		474	270	15100	30	5	214	0	2300								
	2		019	19	2500	630	1410	1900	970	0								
	1		206	35	720	2500	48	840	245	700			30	0	0	1	4800	248
	Dilution		10-4	10-4	10-4	10-4	10-4	10-4	10-4	10-4			10-4	10-4	10-4	10-4	10-4	10-4
	Body	A Areas	Ear	Nose	Mouth	Throat	Axilla	Groin	Glans penis	Feces		B Areas	Scalp	Еуе	Forearm	Umbilicus	Anal fold	Toes

Incubator not working properly at 10th sampling period for feces, 11th for body areas. Liquid diet started 0800 Tuesday, April 27, date for feces sample #8.

TABLE 7 --- Continued

Subject 33

								Sa	Sampling	Period	3						
Area	Dilution	н	2	3	4	5	9	7	8	6	10	11	12	13	14	1.5	16
A Areas Nose	10-4	224	167	100	130	303	100	21	3190	23	43	2800	3300				
Gingival	10-4	810	13	20	2	9	133	158	970	380	103	49	880				
Throat	10-4	590	670	8600	1950	2720	1050	Cont.	5530	3260	1210	1590	1760				
Axilla	10-4	21	>8000	1320	3750	10000	4550	1300	>2000	7920	870	4700	>3000				
Groin	10-4	2380	6550	5400 25100		10300	3680	7200	10000	69700	69700 14000 72400	72400	15500				
Glans penis	10-4	н	144	1	36	12	34	28	381	1810	318	753	850				
Anal fold	10-4	1200	5630	1650	28000	2000	11600	3700	1810	6120	2400	7030	2840				
Feces	10-6	141	153	217	131	105	> 511	147	92	579	187	165	399				
Toes	10-4	5500	>14000 n.s.	n.s. sweat	2000	n.s. gweat	3400	7800	39600	22500 47400	47400	110000 45000	45000				
				test		test											
B Areas	,						•						1				
Scalp	10-4		21							280			160				
Ear	10-4		1							250			151				
Eye	10-4		3							A			3				
Forearm	10-4		1							179			>527				
Umbilicus			2450							8670			×4290				
Electrode	10-4		not wired							77			400				
										1							

Feces - additional count taken prior to start of experiment - 275

Electrode - 3B-285 n.s. = no sample

TABLE 7 --- Continued

						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	and the branchistoric tests	Sa	Sampling	Period	מי					to provide the state of the sta	
Body Area	Dilution	1	2	3	4	5	9	2	8	6	10	11	12	13	14	1.5	16
A Areas											,-						
Nose	10-4	4	11	11	116	4	63	44	115	176	340	540	300				
Gingival	10-4	1000	200	7400	3050	300	430	3510	2270	1240	tntc	3400	1670				
Throat	10-4	15200 24000	24000	3600	3600 42200	1900	1180	8900	1780	7300	7000	09	5400			Ì	
Axilla	10-4	222	149	140	8700	4070	174	644	8330	6180	tntc	780	4130				
Groin	10-4	1110	3280	4350	6320	23300	2070	4750	6950	3050	0029	15500	15300				
Glans penis	10-4	201	52	265	265	190	520	415	9420	3600	1005	4530	2830				
Anal fold	10-4	262	580	470	3800	086	009	420	5610	3320	13500	3940	>4500				
Feces	10-6	▶774	7570	101	>650	204	>420	156	128	170	222	142	289				
Toes	10-4	2800	4300	n.s.	5060	n. s.	100	3400 21400	31400	2800	2600	1700	12500				
				sweat test		sweat											
B Areas							-										
Scalp	10-4		95							495			105				
Ear	10-4		0009							148			40				
Eye	10-4		7							4			11				
Forearm	10-4		0							23			88				
Umbilicus	10-4		T							009			70				
Electrode	10-4		wired							177			2120				
	Appendix transferrent property and the second																

Feces - additional count taken prior to start of experiment - 7671 Electrode - 3B->354

TABLE 7 --- Continued

Subject 35

								Sa	Sampling	Period	-						
Body	Dilution	1	2,	3	4	5	5	7	. 8	6	10	11	12	13	14	15	16
A Areas																	
Nose	10-4	- :3	32	185	164	83	1110	313	86	82	580	124	4200				
Gingival	10-4	=======================================	0	50	530	1500	3250	220	310	2640	8000	500	1940				
Throat	10-4	10007	1500	4200	2100	1740	2900	2180	6300	4030	4180	3950	4900				
Axilla	10-4	1040	4110	1280	2490	5140	2140	2960	6400	6400contam	096	6460	>6020				
Groin	10-4	130	2900	2470	2470 13700	540	930	6650	12000	12000 22500 2	22000	2000	11800				
Glans	10-4	44	1250	415	296	1280	140	490	1270	1850	009	440	.650				
Anal fold	10-4	3510	1	7700	7700 28600	6300	1200	120018800	15500	2000	32500	6700	18100				
Тесея	10-6	236	ΙV.	59	200%	90	166	>296	>900	n. 8.	39	194	200%				
Toes	10-4	5700	5700 16000	38700 45500	45500	55000	11800040000	40000	91000	91000 70000	127000175000	175000	92000			1	
										- 12.							
В Агеав										1	-		7				
Scalp	10-4		78							270			0124/				
Ear	10-4		250∩							692			910				
Eye	10-4		4							0			0				
Forearm	10-4		0							0			8			- (
Umbilicus	10-4		2860							2750			11				
Electrode	<u> </u>		wired							0			890				
Canamanana	*	. Commented Street, Commenter, Co															

Feces - additional count taken prior to start of experiment - 365

Electrode - 3B into

NS = No Sample

TABLE 7 --- Concluded Subject 36

																reported framework 400	
Body								Sa	mpling	Sampling Period	ا			ľ		h	
Area	Dilution	1	2	3	4	5	9	7	8	6	10	11	12	13	14	1.5	16
A Areas																	
Nose	10-4	230	394	920	710	8680	454	1150	677	2390	2670	2040	1740				
Gingival	10-4	3900	1060	6770	570	300	460	530	290	1230	520	4200	1060			İ	
Throat	10-4	4100	1900	360	6750	tntc	6700	3600 18400	18400	1250	1800	1000	2150				
Axilla	10-4	0	670	1450	×	4480	58	130	3260	123	250	175	2640				
Groin	10-4	2120	2050	5760	5760 >8000	4100	2040	2750	8800	17800	4800	3500	14000				
Glans penis	10-4	×	×	×	100	760	84	>530	3700	×838	182	>623	7980				
Anal fold	10-4	2450	066	2800	2800 12900	1050	6630	2230	tntc	1400	1070	18500	18600			Ì	
Feces	10-6	331	>546	134	006<	>372	>438	282	408	tntc	333	>464	450				
Toes	10-4	×	×	×	×	×	64000	22000	×	71000 246000	246000	48000	78000				
B Areas																	
Scalp	10-4		57							104			80				
Ear	10-4		3270						110,100	>5150			>4400				
Eye	10-4		0							2			0			İ	
Forearm	10-4		T							1			40				
Umbilicus			11							3920			210				
Electrode	10-4		not wired							н			untc				

Feegs - additional count taken prior to start of experiment - >525 X = Spreader

Electrode - 3 into Electrode - 3 B into

TABLE 8. AEROBIC BACTERIAL COUNT FROM AXILLA AND GROIN

EXPERIMENT V

						S	Sampling Period	Period							
		7	23	က	4	ထ	9	7	8	6	10	11	12	13	14
	Axilla	20	œ		0	150	33	3	12	ည	25	15	18	13	18
<u> </u>	Groin	200	200	51	200	500	300	320	500	200	500	250	140	115	250
	Axilla	16		-	0	က	9	က	7	œ	t~	ည	ū	raold	0
87 	Groin	200	200	20	4,	0	250	100	58	100	100	240	310	270	250
	Axilla	250	100	10	0	200	06	300	150	81	10	21	18	23	32
я ——	Groin	009	300	70	10	0	200	30	7.1	300	28	146	10	×	0
8	Axilla	106	250	141	61	200	200	×	56	400	165	20	200	10	81
2	Grodn 500	200	300	4	4	0	250	2	250	2	23	50	က	×	0

X = Spreader

TABLE 8--- Continued EXPERIMENT VI

							Sam	Sampling Period	eriod								
		1	8	3	4	ည	9	4	æ	6	10	11	12	13	14	1.5	16
9.1	Axilla	300	0	300	65	tnto	300	tntc	tntc	454	tntc	tntc	tntc	tntc	tntc	tntc	tntc
1	Groin	435	57	328		tntc	23	tntc	tntc	tntc	tntc	tntc	tnte	tntc	tntc	tntc	tntc
66	Axilla	91	11	37	0	7	400	72	116	19	30	4	148	tntc	63ء	200	
3	Groin	113	186	229	ĭ	tntc	232	tntc	64	429	tntc	tntc	tntc	tntc	tntc	tntc	
86	Axilla	ဒ	2	0	0	268	250	200	150	250	140	009	363	102	217	200	38
3	Groin	835	247	61	သ	tntc	240	435	tntc	tntc	tntc	tntc	tntc	575	875	335	325
9.4	Axilla	200	250	61	80	91	450	312	200	tntc	550	tntc	650	625	tntc	039	tntc
# 7	Groin	71	840	1150	23	45	80	374	tntc	193	525	800	258	94	277	98	165

into = Too numerous to count

TABLE 8 --- Continued

EXPERIMENT VII

			***************************************				Sam	Sampling Period	eriod								
		-	2	က	4	ಬ	9	L	8	6	10	1.1	12	13	14	15	16
	Axilla	170	170	20	09	440	5000	20	6400	27000	5800	120	230	100	100	0	300
92 	Groin	0	330	•	370	550	trito	5900	0819	2410	10600	1580	13100	35400	19900	20400	13500
	Axilla	10	4000	20	20	4400	2140	10000	1200	5400	2420	2420 31000	1800	79200	54700	7.5000	68400
 	Groin	0	550	470	700	tntc	tn.tc	1500	tinte	tntc	16700 15300	15300	4400	6820	1160	740	670
	Axilla	50	1540	20	270	560	1480	8500	14400	750	26700	3400	700	7300	4900	2090	3400
- 27	Groin	0	88		15	tntc	tntc	632	376	260	3600	2100	1180	850	574	1.240	240
	Axilla	0	2290	20	5090	8000	tntc	8000	200	6480	18200	0029	1220	1990	37000	7200	1500
83 	Groin	0	က	0	39	800	240	231	355	441	217	123	7.1	2270	410	250	450

tntc = Too numerous to count

TABLE 8 --- Continued

EXPERIMENT VIII

							Sam	Sampling Period	eriod								
		1	2	တ	4	2	9	7	æ	6	10	11	12	13	14	15	91
06	Axilla	325	2030	1	2160	5420	2520	1140	5920	3780	5840	3350	1130	5490	2140	5230	3500
67	Groin	105	840	480	5500	9100	800	3500	9800	5280	tntc	tntc	13300	65000	90100	35500	35500 35000
30	Axilla	2220	3620	S	1790	3000	3750	80	181	0904	2880	3960	3500	3370	4400	tntc	1700
}	Ciroin	507	510	1610	1980	1430	1.864	1340	1050	7000	3500	3350	1150	4900	4900 Contam		4900 46400
3.	Axilla	630	3040	200	127	1820	840	9800	5560	3070	3530	4380	2000	4910	1780	4850	2750
•	Groin	900	2010	1870	2510	1990	1950	4960	8440	8000	8250	3800	1900	3850	3500	2,2000	22000 36800
3.9	Axilla	48	1410	ဌ	220	4520	0099	2800	2860	1650	4750	3400	0089	5840	3300	9500	5250
	Groin	840	1900	214	3420	1690	3120	1590	3500	3260	5500	5580	3500	2400	1200	1330	3900

inte = Too numerous to count

TABLE 8 --- Concluded

EXPERIMENT IX

	Parameter de la constanta de l		***************************************			Sampl	Sampling Period	p,				THE PERSONNEL PROPERTY OF THE PERSONNEL PROP	
·		1	2		4	S	9	4	œ	6	10	11	12
	Axilla	21	>8000	1320	1550	0896	4550	1300	0009	7920	870	4700	> 3000
 	Groin	2380	6550	5400	25100	10300	3680	7200	10000	69700	14000	72400	15500
	Axilla	222	1.49	140	0006~	4070	174	644	8330	~ 7000	tntc	780	4130
	Grofn	1110	3280	2960	6520	23300	2070	4750	6950	3060	6700	15500	15300
# # F	Axilla	1040	4110	1280	2490	5140	2140	2960	001-9~	Contam	096	2000	> 6020
? 	Groin	130	2900	2470	13700	540	930	0650	~12000	22500	22000	2000	11800
76	Axilla	z. G.	670	1450	×	4480	58	1,30	3260	123	250	375	2640
0 0	Groin	2120	2050	5760	8000	4100	2040	2750	8800	17800	4800	3500	14000

X - Spreader N.G. - no growth tntc - too numerous to count

TABLE 9. OCCURRENCE OF STREPTOCOCCI EXPERIMENT V

									3.	Sampling Period	2								[
Three calibration calibr	Subject		-	*	•	•	•	•	1.	*	•	10	11	"	::	=	23		
Modella	-	Throat	selfraribae		saftvarites			saltrartes	1		saftrarties	80	2	Selfraria	1				
Maria		g X			a true	a litte					ē			į		. 200 1984			
Trees criented Color		A Elli					un num	enterococci										. •	
Three		Fere	esterococci																
Note 1982		Cabilica						·**	enterocoeci	- The series space								de tra	
Notes 1922 1922 1922 1922 1923 1923 1924 1925 1924 1925	2	Direct			s pra				1	adds	eg pa	and its	selivaries						İ
Fices		Korth	5 Ta			and the		. 					į			 .	*****		
Frees		ş	-						anitraritae	*			ند ور						
Throat milits m		Ī	e e to todo			# F			angles of the same							. we way			
No. Wilting William William Wilting Wilton Wilting Wilter Wilting Wilting Wilting Wilting Wilting Wilting Wilting Wilting Wilting Wilting Wilting Wilting Wilter Wilter Wilter Wilter Wilter Wilter Wilter Wilter Wilter Wilter Wilter Wilter Wilter Wilter Wilt	:	Throat		aufile	1	selbertes	ļ , .	metre		=120		selltrarites		and the state of t					
Fives materiored Marie M		đ X	metrica		100	actita	es e					į		200	aff.				
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Greta Greta Month Month Three Three Three Mal 54:		ş											and the same						
Month North North Those Those Three marrowed esterocoed Anal 54:		7					•,		Paterococci	TO THE STATE OF							u= 11,12		
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mits caterococci		Throa.					. 41			esilvariles.		anitrarian		}					****
epin a		78.00	- Locard		esterococci		tera e			e are		1							*** ***
		Asal Soi.						sppa.				•							

TABLE 9 --- Continued EXPERIMENT VI*

				De culture and	r. Ethoeton	fedium, identification e, 1 group		Exercence Group	est, Microbiologist, 5 AFB, Dayton, Othe,		
				Each number represents me culture and	sampling date of recovery. Bio. * Biochemical identification	M.S. = Mins Salvarius Medium, identification 1, Only 2 species, 1 group	Mais Salvarius	Exteres come Group	"Work performed by A. West, Microbiologist, AMRL, Wright-Paternos AFB, Dayno, Obb.,		
LACTIC GROUP	Lactis Cremoris										
SE33	1 2 2				•						
	No.					•					
#DOI						, <u></u>					
ENTEROCOCCUS GROUP	Liquefactors 2ymogenes									'n	
6	Paralla	-13	2.57.5.11.19.15		11.16	1,7,9,10,12,14		1,7,0		9.14	6,7,11,15
	9					· · · · · ·					
	Thermophilia Corta										
a .	Equipme										
VENDANS GROUP	Boyte										
CORCIA	яин	7	1, 12 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16	4,7,14 1,3,4,5,6,7,8,9,10, 12,13,14,15,16				6, 8, 15 3, 5, 7, 8, 9, 10, 11, 12 13, 14, 16	4,6,7,11,15 1,2,3,4,5,6,7,8,9, 10,11,12,14,15,16		* .
	Salvartus		1, 2, 5, 7, 9, 11, 14, 15 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16	M.3. 3,4,6,7,8,9,10,11 12,13,14,15,16		6,10		M.S. 1.5,6,11,13,14,15 M.S. 1.3,5,7,6,9,10,11 14,16	M.S. 1, 14 M.S. 1, 2, 3, 4, 5, 6, 7, 8, 9 1, 2, 3, 4, 5, 6, 7, 8, 9 10, 11, 12, 13, 14, 15, 16 10, 11, 12, 13, 14, 15, 16		
		K.S.	K W	Bio.	M M	X 30.	Bio.	K.S.	K S.	M S	K.S.
	Body Area	* 8 %	Korth	The state of the s	Anal	Feces	Nose	Modeb	Throng	Anal	Feces
	Seject	ä					n				
	4 ×	<u> </u>					#				

TABLE 9 --- Continued

			Each number represents one culture and	Blo Biothenical identification	M.S. = Milis Sabraries Medium, identification 1. Only 2 species, 1 group	Exerceces Gross	,	Esterococcus Group			
Cremoria											
Lectio							Ħ				
Derrane											
Zymagenes											
Lipsetheless											
Passile	6,7,14	1.2.4.12.13	1,5	1	4.5,6,7,9,11,13,14			1, 2, 5, 13, 14	20	11.12	4.5.7.11.14
Uberts			=								
Thermophilies	<u> </u>										
Equina											
Borts											
pinis		15 2, 3, 4, 5, 6, 7, 8, 10, 13, 14, 15, 16	11, 12 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16		• · · ·	4,9, 10, 14, 15	8, 12	3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 14		
Salvarius		1,9,12,15	1,7,9,12,13,14 1,2,3,4,5,6,7,8,10,	1	7, 8, 9, 10	-		1, 4, 6, 8, 10, 16	1, 2, 3, 4, 5, 6, 7, 5, 9, 10, 11, 12, 13, 14, 15, 16	· ·	n
	Blo. M.S.	K.S.	M.S.	K.S.	Dio. K.S.	Mio.	g d	K.S.	M.S.	Bio. X. S.	Bto.
Body	Nose	Xouth	Thront	Amel	Feces	Nose	Moreh		Three	Amel	Feces
Sebject No.	ដ					z					
	t Body Salvarius Milits Borts Equinus Thermophiles Uberts Facults Liquelicities Zymogenes	Salvarius Milis Boris Equinus Thermogalitus Uberis Fascalis Liquedeciesa Zymogenes Durasa Blo.	Selvatius Milis Boris Equinus Thermophility Uberis Paenalis Liquedactess Durmas Durmas Durmas Durmas Blos. 1.9.12.13 15 1.2.4.5.6.7.8.19.	Selvarius Matis Boris Equinus Thermophilia Uperis Fleachis Lipsethcies Zymogenes Durmas Lactis Cremsoria	Selvarius Mais Boris Equinos Thermophilia Uperis Fascalis Lipsefactess Zymogenes Durmas Lactis Cremsorts	Blo. Salvarius Matis Boris Equinum Thermophilian Uperis Fluorities Zymogenes Durman Lactus Lactu	Selvertus	Solventias Matis Boots Equinos Thermophilia Cheris Flacultis Ligardicines Zymogenes Durmas Lictis Cremornia	Schortus	Bloc. Salvarius Milis Doris Equina Thermophile Uperis Facethie Liquencies Durmas Lacit Crescris	Salentius Malls Devis Equine Thermopality Devis Devis De

TABLE 9 --- Continued EXPERIMENT VII*

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Boris Equinus Thermophilias Uberts	
Equipme	
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Salvatus							Each number represents to sampling date of recovery	Bio . Biochemical identification	٠	I, ONLY 2 #P4c5. Matie	Salva rius	30.30. 13	EMerco		from Anaerobic an			
Salvatus	C GROUP	Cremoria																
Salvarius	ואכנו	[ACEI						;				-						
### Salverius Sa		Darene							22						,			-
### Salverius Sa	noup	Zymogenee																
Salvation Salvation Mills Movie Fquinus Thermubilius theris Facchia Facchia Mills A.S. 6.7.7.6.10.10.13.14.15.16 Mills A.S. 6.7.7.6.10.13.14.15.16 Mills A.S. 6.7.7.6.10.10.11 A.S. 6.7.7.6.10.10.11 A.S. 6.7.7.6.10.10.11 A.S. 6.7.7.6.10.10.11 A.S. 6.7.7.6.10.10.11 A.S. 6.7.7.6.10.10.11 A.S. 6.7.7.6.10.10 A.S. 6.7.7.6.10 A.S. 6	ERCCOCCUS O	Ligaelaciere												-				
### Salvation Salvation WFRIDANS GROUP	ENT	Frechis	[10]	3.4.5.6		() 1		3	3, 4, 5, 7, 9, 11, 13, 14, 15	11, 12, 13, 14	••••						7, 13, 16	
### Salvarius Salvarius Numa Numa Numa Cholure Thermophilus																		_
MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 3, 4, 5, 6, 7, 7, 9, 10 MINS. 3, 4, 5, 6, 7, 10, 11, 11, 12, 4, 15, 7, 8, 10, 11, 11, 12, 4, 15, 7, 8, 10, 11, 11, 12, 4, 15, 7, 8, 10, 11, 11, 12, 13, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14		Thermophilus																
MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 2, 3, 4, 5, 4, 7, 9, 10 MINS. 3, 4, 5, 6, 7, 7, 9, 10 MINS. 3, 4, 5, 6, 7, 10, 11, 11, 12, 4, 15, 7, 8, 10, 11, 11, 12, 4, 15, 7, 8, 10, 11, 11, 12, 4, 15, 7, 8, 10, 11, 11, 12, 13, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14		Fqulnus													_			
M. S. 1. 3. 4. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 11. 12. 3. 5. 6. 7. 8. 10. 10. 11. 12. 3. 5. 6. 7. 8. 10. 10. 12. 3. 4. 5. 6. 7. 8. 10. 10. 12. 3. 4. 5. 6. 7. 8. 10. 10. 12. 3. 4. 6. 6. 8. 10. 11. 12. 3. 4. 6. 6. 8. 10. 11. 12. 3. 4. 6. 6. 8. 10. 11. 12. 3. 4. 6. 6. 8. 10. 11. 12. 3. 4. 6. 6. 8. 10. 11. 12. 3. 4. 6. 6. 6. 8. 10. 11. 12. 3. 4. 6. 6. 6. 8. 10. 11. 12. 3. 4. 6. 6. 6. 8. 10. 11. 13. 4. 6. 6. 6. 6. 7. 10. 11. 13. 4. 6. 6. 6. 6. 7. 10. 11. 13. 4. 6. 6. 6. 6. 7. 10. 11. 13. 4. 6. 6. 6. 6. 7. 10. 11. 13. 4. 6. 6. 6. 6. 6. 6. 11. 13. 4. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	SCHOU	Bovie									Ī							
M M M M M M M M M M M M M M M M M M M	VFRIDAN	Mills	to the experience of the last of the second	9. 7. 9. 13, 14, 15, 16	4. 5, 9, 10, 13, 14, 10, 16	0 91 91 12 12 12 10 O	11, 77, 14, 15, 16			ŧ.			3. 3. 11. 11. 11. 11.		10, 11, 12, 13, 14, 15,	1, 3, 4, 5, 6, 7, 8, 10, 11,		
M. M. M. M. M. M. M. M. M. M. M. M. M. M	***************************************	Salvarius	7	2,3,4,3,4,7,4,9,10	2, 3, 6, 9	11. 12. 13. 14. 16. 16.	1, 5, 4, 5, 6, 9, 10, 11, 14						1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15	1,2,76	11, 2, 1, 5, 6, 7, 6, 9, 10	1, 2, 3, 4, 5, 6, 9, 9, 10,	<u>:</u>	
Djecf Body fo. Nose Nose Anal Anal Peces Yose Throst			210. X			Ä.		. E	100	, si , z		× = ×				×	1010	ž
12 (12)		Body	N.C.	Mouth		The safe		And	,			NOR	XOA		Throat		Anal	
1341		Subject No.										:						_

TABLE 9 --- Continued EXFERIMENT VIII*

					Rob Hurbber Pepri sests one ou bire and	Blo. * Brochemical inentification	W.E. * Mitta Ballvarius Medium, identificetion 1, Only 2 species, 1 group	Muss Se Irento	Riterospone Oroug	city. I than not of colourse we convered from Arearchic and Aerobia Blood ager, and Chocolate ager, Nates.	Work bedomeday A West Mark bedomeday	AMRL, Wright- Pitterson A B, Enyton Calo
G.IORO JALOT	permentante rame und	Ligaefaciane Tymogenes Derana Lactia Cremoria		⊙ →		•	જે ય		•		€ 11.71	-
CAN THE RESIDENCE AND INCOMESSAGE AND ADDRESS OF THE PERSON OF THE PERSO		Ligaefaciene Zymogenes				-			-			මක
		Pescalie	ľ		to decident a rate of the second second	Sur.	- 1.19.18.44.18.11.4B.		(ma		3 101 101 101 10 10 T	2 3 10, 11, 12, 13, 14, 18, 100
		Berte Kquinas Thermoghilus Utarie								ģ		-
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		onitalism .		1, 2, 3, 5, 6, 7, 4, 23, 13, 14, 16, 16, 10, 1	1, 2, 3, 6, 4, 7, 4, 9, 11, 12, 14, 18, 16, 3, 4, 1, 4, 3, 4, 5, 8, 7, 9, 10, 12, 13, 14, 13	-	81 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(m.	1, 2, 3, 4, 6, 7, 9, 10, 4 2, 19, 18, 14, 12	1, 2, 4, 9, 10, 11, 12, 34, 15, 34, 15, 34, 15, 34, 15, 34, 15, 15, 14, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15	-	⊕ : ·
	•	•	X.0.	Mouth *Blo. H. 9.	a X X	x ž	, x, y	X 80.	K.F.	м Ж.	Mo.	-4 5 5 7 1 1 1
.	"ubject" Body	*** · · · · · · · · · · · · · · · · · ·	1 N	Mout	Throat	Pu¢.	, i	90 X	Mouth	Throat	Anal	

				VEREDANG GROUP				ENTEROCOCCUS GROUP	ויאכ	LACTIC GROUP	
¥	No. Are		Cally Art 18	XIV.	Borts Equ	Rorie Equints Thermogalius Unerie	TAPERTIE	Liquefactons 2ymogomes Durans Lacils	Durana Lacita	<u> </u>	
=	X	X E		INDER DESCRIPTION OF THE PERSONS OF THE BORG OF	•	de étern de sereit expession de sereit des sereit de ser	AND AND AND AND AND AND AND AND AND AND				
	Kouth	K K	Mouth Bio. 3.3 4.4.4.7.9.10.313.32.	1, 2, 2, 6, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 17, 17, 17, 17, 17, 17, 17, 17, 17			Total Administration of the Control				
	TA981	М. 4.	1,2,3,4,8,6,1,8,7,10,11,17, 1,3,3,4,8,4,7,8,8,10,11,11,13,14,18,18, 18, 20, 11,13, 14,18,18, 18, 20, 12, 13, 14, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	1, 2, 3, 6, 6, 6, 7, 8, 9, 10, 21, 18, 13, 14, 18, 18, 30, 2, 3, 8, 4, 7, 8, 9, 10, 18, 14			Luft dalfair menenen mannen un	·		-	
	A nel	3 X		**			Transman .		⊕€		Each number represents one culture and sampling date of receivery.
		ž,		•			Militarian	-	Θ π.	-	Blo. • "I sobemical identification H.R. • Mins Balletrica Medium, doctification 1. Only 2 species, 1 grous
Ξ	***	X Y	1, ()				-thirtemental control to the control to the control tenses on a second control of the control of	****	Marrianisassissis arpsiessissis (4110 11111) (4110 11111) (4110 1111) (4110 1111)	-	Mille
	Keeth	К. В.	1, 2, 2, 4, 4, 4, 7, 4, 9, 10, 11, 13, 11, 4, 8, 4, 17, 8, 10, 11, 13, 14, 16, 16, 16, 17, 13, 14, 18, 16, 13, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	13. 14, 16, 17, 18, 19, 10, 11, 13, 13, 14, 16, 10, 10, 10, 11, 13, 14, 14, 14, 14, 17, 17, 11, 13, 14, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18			3, 5, 15, 15, 14, 3				KMetroscue Group
	Three	M.A.	2, 3, 4, 6, 4, 7, 9, 9, 10, 51, 13, 14, 11, 16, 25 6, 7, 4, 9, 10, 71, 11, 16	1, 2, 3, 4, 4, 4, 6, 8, 10, 11, 12, 13, 14, 14, 14, 14, 14, 14, 15, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14							overthe Agroba Blood apprend
	74	м ў.						_	9		And the same and t
	•	7. %.	N. 8, 4, 5, 14, (5)	7,13			CHAPTER WASHING				

TABLE 9 --- Continued EXPERIMENT IX*

			M.	T NIDANS CROUP						ENTEROCOCCUS CROCP	CHOCP		LYCII	LACTIC GROUP	
Mubject No.	Subject Body No. Ar. 1		Salivarius	Mitte	Bowle	Equipme	Borts Equinus Thermophilus Uberts	Uberte	Pascalla	Lapushedona Zymogenna Durano Lactio Cremorto	Zymomer	1	a de	Cremorto	
я	Otogival Bio.	i vi	n '4	* i.											
	Throat	¥ 80	3, 5, 7-10, 11	4, 12 3, 5, 7-10, 11											
	Fece	k k	21	ų 6					1, 2, 3, 6, 7, 6, 9, 11						Each maker represents sampling date of recover
z	Gingan	M.S.	Gington Bio. 3, 6, 7, 9, 9	1, 4, 5, 10,11, 12 6, 7, 8, 9											He Biochanical idea M.S Mitis Salivarius
	Throat	K. S.	1, 2, 3, 4, 5, 6, 7, 6, 9, 10, 12	1,6, 9, 12											Marie Salivarie
	Fere	 2 3	Bio. 5, 6, 7, 9, 10, 11	•					1, 2, 3, 8, 12 K, 7, 8, 16						Entervoor

	Actis Cresoria				Each murber represents one culture and sampling date of recovery.	M.S Mitte Salivarius Medium, Mertification	1. ONLY 2 species, 2 group Mitte Sulfvaries	Esta roccous Group
G. BORD S. BOOK GLAND	e Derane L						and approximate of the second	
	Faccalis	7.13		3,6,9	1,2,3,4,6,7,8,11,12		\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1, 2, 6, 7, 0, 9, 11, 12
	Cherie							
	Bovis Equines Thermophibes Uberia							
40	Equipme.							
VE RIDANS GROUP	Bowla							-
VERIDA	Marte	-	1,4,5,6,9,10,11,12	1, 2, 6, 6, 9, 10, 11, 12		1, 3, 5, 6, 7, 10, 11, 12	2, 6, 7, 10, 12	; ;
	Salivarius	п	2, 7 6, 10	1,2,6,7,6,9,19,11,12	n	1, 3, 6, 12	6 6 9 6 9	3, 10
		K. S.	K W		Mo.	× ¥	, e	, e
	Subject Body No. Area	Nose	Gingitval Blo.	Throat Mo.	Feces	Gingival Bio.	Throat Mo.	Feces
	_					2		

RECOVERY OF MICROCOCCACEAE* TABLE 10.

Subject 17 · EXPERIMENT V

							Sam	Sampling	Per	1 od						
Body Area	1	2	တ	4	5	9	2	8	9 10	10	11	12	13	14	15	16
Scalp		+	+						+ 1					(2)		
Ear					ı											
Eye															-	
Nose	(2)	1				ı	<i>4</i> 1	+ 1	(2)+	(2)	+ 1	ı	+1			
Mouth			P-0											(2)		
Throat										1		+		+		
Axilla	1	1			(2)	1	1	į	+	(2)	+	ı	, (2)	(2)		
Forearm																
Umbilicus											-	1				
Groin	(2)	+ 1	+	+	ı	ı	(2)	(2)+	1	+ 1	(2)	(S)_	(2)	+ 1		
Glans Lenis		(2)+	+						(2)-	-				-		
Anal fold	4.	•				1		1	1			t		+ 1		
Feces	1						,					1	_			
Toes		(2)									,		,	+		
		1				¥ *****	a th terresent describe	4	7		4	4	-	J	7	*************************************

i *

positive coagulase test negative coagulase test Work performed by Mr. J. Rack and Mrs. B. Horstman, Miami Valley Hospital Research Department under contract AF33(357)-11716.

TABLE 10 --- Continued

Subject 18 - EXPERIMENT V

18 12 (Z) + 1 + 1 + 1 1 (3) 13 ŧ + 1 (2) 23 ł (E) (E) 11 1 $(2)^{-}$ ଫ୍ର ଅ, ଞ୍ଚ Period ÷ 10 6 + 1 + 1 + Sampling (3 8 + 1 1 + 1 æ ⁺(2) ŧ ŧ + (8) (S) 8 I ı ł က ı ÷ ı i + • 1 ŧ တ (3) **(**2) • 1 i • + 3, + 1 + Glans penis Body Area mbilicus Anal fold orearm **Chroat** Feces Mouth Axilla Groin Scalp roes 1086 Ear ye

÷

positive coagulase test negative coagulase test Number of different strains **8 8** 11 10

TABLE 10 --- Continued

Subject 19 - EXPERIMENT V

							Sam	Sampling	Der	eriod						
Body Area	-	2	3	4	5	9	7	8	6	10	11	12	13	14	3.6	16
Scalp		÷							 							
Ear	⁺ (2)	÷	+				÷		÷		+	÷		(2)+		
Eve	÷	(2)				+						í		1		
Nose	***	(2)	+	i			1	(2)	ţ	•	,	89,	ı	(2)		7
Mouth														÷		
Throat		1						1		÷	÷	1				
Axilla	1	1				⁺ (2)	ı	(2)	ı		÷	+ 1		ı		
Forearm		***************************************		†												
Umbilicus	***************************************	-								1			1			
Groin	, t (2)	+	+					+ 1			÷				***************************************	
Glans penis		+									es en enconquistration () este					***************************************
Anal fold					÷					+						***************************************
Feces									+(3)							
Toos		+ 1												ı		
			1		-	4	4	7	4							

positive coagulaso test negative coagulase test Number of different strains

Subject 20 - EXPERIMENT V TABLE 10 --- Continued

							Sam	pling	1	1 od						
Body Area		2	ಶಾ	4	8	8	7	7 8	9 10	10	11	12	13	14	15	16
Scalp		اب														
Ear										-		(2)			1	
Eye	***************************************											1			1	
Nosc	(3)	+ 1			÷!		1	÷	1	<u>.</u> 1	ı		÷			
Mouth														1	and to assume as 4 seconds	
Threat	* 100 100 100 100 100 100 100 100 100 10												Parent Control of the		***************************************	
Axilla	1				ı	ı	(2)	1	1	1	4	(3)	***************************************	ı		
Forearm	and described	3											*	***************************************	Tallocad in carrient	
Umbilleus	**				÷			ଥି,	(2)		+					Personal Personal
Groin	÷1	***************************************	9*			÷	1	1		(2).	+	-	, (2)			
Clans pents		+ 1		**************************************								***************************************		***************************************		- BEST PROPERTY OF STREET
And fold		+		1	÷	***************************************	***************************************		1	÷	*	4004 4004 7770 7770	*			
Feces					(2)							111111111111111111111111111111111111111	***************************************			1000 0000
1, 008	COL AMERICAN		1						÷1							

positive congulase test negative congulase test Number of different strains

TABLE 10 --- Continued

Subject 21 - EXPERIMENT VI

										T		Ţ				7
	16															4
	12	(2)		-(3)					1	+			-(3)		(2)	
	14														-	
	13															
	12		+ 1		(3)		,	+			+ 1					
	11		(2)		(3)	⁺ (2)	-(2)	+ •			+1	⁺ (3)				-
pol	10	(2)	1		(4)			+1	1	_(2)	+1	+1	-(3)		i	_
Period	6		ı		(E)_		•	(S)_			+1	+ 1				_
ling	8		+ (2)		(2)		+	+ 1			+1	+ 1		,		-
Sampling	1		+ 1		+ 1	1		+			(S)_	+1				_
	9		(2)		(2)			+			+ 1	+1				_
	5		(3)		(S) ₊						.+	(2)				_
	4		+1		(E)_			+	<u> </u>		+	(S)				
	3	-	+		(3)	(2)		. +			ı	±©,				_
	2	(2)	(2)	<u> </u>	ı					+ -(2)	⁺ (2)	+1	-(4)	L	(2)_	_
	\vdash	-	(2)		(2)		 		 -		(2)	ļ	-(3)		(2)	
 	上	+	<u> </u>	-	ļ [†] '	 	-	+	'		+ '		-	-	•	_
	Body Area	Scalp	Ear	Eye	Nose	Mouth	Throat	Axilla	Forearm	Umbilicus	Groin	Glans penis	Anal fold	Feces	Toes	

+ 1 ______

positive coagulase test negative coagulase test Number of different strains

Subject 22 - EXPERIMENT VI TABLE 10 --- Continued

							Sam	Sampling	Per	lod						
Body Area		2	3	4	2	9	7	8	9 10	10	11	12	13	14	15	16
Scalp	(3)	+(2)								(2)					+ -(2)	
Ear	•	(2)	8	ł	,	1	(3)		+1	⁺ (2)	⁺ (2)	+ (2)				
Eve															,	
Nose	+ -(2)	(3)	+ 1	ı	1	(3)	_ (2)	(3)_	(E)_	(3)	(3)+	(E)_1				
Mouth	+1		ı	ı	(S) +											
Throat		+1	+	+	+	+	+	+		+						
Axilla	(2)		+1	i	1	ı	8	+ (2)	+!	, (2)	(3)	(3)				· · · · · ·
Forearm	+	+								i					-(2)	
Umbilicus	+(2)	+								+					+	
Groin	+(2)	(2)_	+ -(2)		(S)_	+ 1	-(2)	1	+1	-(2)	+ 1	, (2)				
Glans pents	(2)_	-(2)	-(2)	+ 1	-(z)	-(2)	(2)_	⁺ (2)		, (2)	⁺ (2)	+ 1			Í	
Anal fold		+1								1						
Fесея																
Toes	⁺ (4)						-								ı	

positive coagulase test negative coagulase test Number of different strains

Subject 23 - EXPERIMENT VI TABLE 10 -- Continued

							Sam	Sampling	Per	lod					***************************************	
Body Area	7	2	3	4	2	9	7	80	9 10	1.0	11	12	13	14	15	16
Scalp	+ -(2)	(2)								+ (2)					+ -(2)	
Ear	+	1	8,		(2)	+(2)	+(2)	⁺ (2)	(2)	(S) -	(2)	+!				
Eye		1								⁺ (2)					(%)	
Nose	⁺ (2)	⁺ (2)	+1	_(2)	i	•		(z) ⁺	+1	+1	+1	1				,
Mouth					1	1					+1					
Throat				(2)				1								
Axdlla	+		i	1	1	(2)	(3)	1	ı	-(3)	+ -(2)	(2)				
Forearm		+ 1								ı					(3)	
Umbilicus										(3)_					+ :	
Groin	į	1	ı	(3)	ı	1	+	+1	i	(2)	+ -(2)	(3)				
Glans penis	(2)		ı	(2)	(2)_	(2)	(2)	+	(3)	j	(E) - (3)	+				
Anal fold		3								1						
Feces										j						
Toes	(8)	ı														
Lann, services to contact the speciments from			market was supposed to													

+ 1 (

positive coagulase test negative coagulase test Number of different strains

TABLE 10 -- Continued

Subject 24 - EXPERIMENT VI

							Sam	pling	1	tod						
Body Area	Ţ	2	8	4	5	9	4	7 8	1	9 10	11	12	13	14	1.5	18
Scalp	+	+ -(2)								,					+	
Ear	(2)-	(2)_	(2)	3	1	(3)	+	(2)	(2)	(3)	+ 1				1	
Eye	(4)	(2)								(2)					(8)	
Nose	+1		+ 1	(2)	+1	(S)_	(2)	+(3)	+	+1	(ê)	+(2)				
Mouth		1			+	÷					+		T			
Throat	(2)+				+	1	†					+				
Axtlla	_(2)	+ -(2)	(2)	-(4)	(2) - (2)	+1	+1	(2)			(3)	+ 1				
Forearm	ĺ	1						 		(2)			T		+	
Umbilicus	I	(2)_								(8)					(6) +	
Groin	(2)_	+1	3	(2)-	(E)	(3)	+ (2)	+1	+ 1	+1	+ 1	(2)			(%)	
Glans penis	-(3)		1	1	-(2)	(2)	(2)	+(2)	⁺ (2)	+(3)	+ 1	1 +				
Anal fold	I	1								+ 1		(g)				
Feces							 - -		1-			+-				
Тоев	(3)	ł														
					The second secon	***************************************		***************************************								-

positive coagulase test negative coagulase test Number of different strains

S bject 25 - EXPERIMENT VII TABLE 10 -- Continued

					-		00	114		207						
							2 4 2	Surrdur ac	ľ		1:	-		7		9
3ody Area	7	2	တ	4	2	8	7	œ	»]	27	7	77	3	**	07	ą k
Scala	(2)															5 +
	+	+ (2)	+	+(2)	+(2)	±(2)	1, (2) 1–(2)	+ (2)	+(3) +(2)	+ (2)	+	+(2)				
Nose	\(\hat{\partial} \)	-(2)	Ŷ			1	+ (2)	\$.	- (2)	+ (2)	1	- (2)				
Eye																
Mouth						-		-(3)		•						
Throat					ŧ	+	+1				+				ì	
Axilla	+(2)	+1	+1		+(2).	+(3)	+ {2}}	+ (3)	+ -(2)	+ -(2)	+(2)	-(2)	49.6			1
Forearm	1							+								+(2;
11mh (1 (c. 1.																+(2)
Groin		+1	+	+(2)	+1	⁺ (2) (2)	+ 1	+1	+(2) -(2)	+(2)	+ 1	1				
Glans	1		•	+(2)	(2)	+(2)	+(2) -(2)	+1	+(2)	(2)	+(3)	+ 1				
Anal fold								ŧ								1
Feces																
Toes								+								+
			4 ·													

positive coagulase test negative coagulase test Number of different strains

TABLE 10 -- Continued

Subject 26 - EXPERIMENT VII

							Sum	Sumpling	1	Period						
Body Area	1	82	လ	4	5	9	2	8		10	11	12	13	14	15	16
	+(2)															(4)
	•		+	+(3)	+(2)	+	+	+ (2)	+1		+(2)	+;				
Nose	(2)	(2)	(2)	~(2)	1	-	_(2)		, (2)	(2)	-	+ (2)	1			
Eye																•
Mouth							#1	1	+	•						
Throat											+					
Axilla			(2)	(2)	(2)	(2)	+1	(2)	+1	+(2)	+ (2)	_(2)				
Forearm	-							+								+(2)
Umbilicus																+(2)
Groin		+	+1	+1	+1	+1	+(2)	+ (2)		÷(2)	+ (2)	+1				****
Glane		+ 1	+!	÷ 1	+ 1	+(3)	+	l i	+(2)	+(2)	+1	+				
Anal fold								£\$\$								((3)
Feces						i							+(3)			
Toes	(c) -															±(2)
		A	*************************************	·												

positive coagulase test negative coagulase test Number of different strains

TABLE 10 -- Continued Subject 27 - EXPERIMENT VII

							Sem	pling	A	eriod						
Body Area	L	23	8	*	8	9	4	8 4	6	10	11	12	13	1.4	1.6	16
Scalp	(£) [†]							+(2)								+1
H. T. S.																
NO S	1	1	÷(2)	+ 1	+1	+ 1	+(2)	(3)			(3)	+(3)				
EV.		+1	(£) +	+ (2)	÷(3)	+ (2)	÷l	+1	+ (2)	÷(4) –(2)	+(2)	(3) (4) (4)				(3)
Mouth					1				1	1						***
Throat			+	+	+	+	+	1			+	+				
Axilla	1		1	ı	+1	1	1	+1	(2) =		+1	+1				
Forestm								÷(3)								+1
Umbilicus																_(2)
Groin	+	+	+	+	+(2)	+1	+	+	+(2)	+ (3)	+	+				
Glane penis			+			+1	i	1		+(2)	+					
Anal fold																+
Feces								+	+		+		+	+		
Toe	(2)								·				-			+1
						***************************************				T					**************************************	

+ m positive coagulase test
m megative coagulase test
() m Number of different strains

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TABLE 10 -- Continued Subject 28 - EXPERIMENT VII

							Sam	pilla	i	Pot.						
Body Area	L	2	8	*	5	9	2	8 6		9 10	11	12	13	14	15	18
	+(2)							+(2)								+(2)
Scalp	1 +	+ (2)	+	+(2)	+(2)	+	I	T	+(2)	+(2)	+(2)	+(2)			***************************************	
Ear			<u>:</u>				Ì		Ī	-	#	+				
S O N	+ 1	+ 1	+ 1	+ :	+ ;	+ 1	+(2)	+ 1		-	-	-				
Eye																+(2)
Mouth					_											
Throat	***************************************		+	+			+		+			+		•		
Axilla			***************************************	_(2)	_(2)	ı	(2)	ı	(2)	(2)	+1	ı				
Forearm							Per 5 100									÷i
Umbilicus				***************************************				1								
Groin		+(2)	+(2)	+(2)	+1	+1	+(2)	+1	+(2)		+1					
Glans		1	+(2)		+ 1	+(2)	+ 1	+ 1	+	•	+ 1	+ 1				
Anal fold		De management enterprise						1								į
Feces																H
Toes	1															1
1 II ;;	gative c	coagula coagula f differ	positive coaguinse test negative coaguinse test Number of different strains	afns												

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TABLE 10 -- Continued

Subject 29 - EXPERIMENT VIT

							Sam	Sampling	ı	Period						
Body Area	7	2	3	4	2	9	7	8	•	10	11	12	13	14	15	16
Scalp		+							+(3)							((3)
EA T	+ (3)	+ 1	+(2)	+ (3)	± -(2)	+1	+{2}}	±(2)	1	+(2)	+ -(2)	÷(2)			1	
Nose	(2)	- spotterprovidents and other	19 19 19 19 19 19 19 19 19 19 19 19 19 1	(2)		manufett schmitchia	_(2)	(2)	(2)	(2)		+1	spinottige Holy decition to	***************************************		***************************************
Eye	***************************************	(6)_	***************************************	dannes de menten	H (distribution of the colonic of t											_(2)
Mouth			+1	10 to 10 to	+	+ .	****	+	+ 1		+	+				
Throat					- Pro	10-10-10-10-10-10-10-10-10-10-10-10-10-1		+	(2)							
Axílla	+1	7					***			÷l	1	+1				
Forearm		+(2)							+(2)							+(2)
Umbilicus	19 TELLE TELle TELLE TELle TELLE TELle TELle TELle TELle TELle TELle TELle TELle TELle TELle Tel	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1) H 400-1-1-1 4 1-1-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1					+ (2)					- 2		+ 1
Groin			+1	+	+	+	+	+1		+1	Ŧ	+		***************************************)	
Glans penís	÷1	+	+ 5	+	110	110010010011001001001001001001001000100010001000100010000	+	+ 2	+	+	+ 5	+			***************************************	
Anal fold	1	÷					1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+	***************************************	111111111111111111111111111111111111111	,	1 and 1 and		***************************************	
Faces	1	+			111111111111111111111111111111111111111	2001 490 - 100 - 1		+ 1		***************************************	+		1	***************************************	***************************************	
Toes		+							ខរ							<u>(2)</u>
hammittee democraticalments																

positivo coagulaso tost nogativo coagulaso tost no sample Number of different strains

Subject 30 - EXPERIMENT VIII TABLE 10 -- Continued

							Sam	Sampling	1	Period						
Body Area	1	2.	8	4	2	9	7	8		10	11	12	13	14	72	16
Scalp		+(3)							+ 1							(2)
Ear		+ 1			+	(2)	+ (2)		+1	I	+(2)	+ 1				
NOBC	(2)	1	2	(6)			(2)	+(3)	(c)_	_(2)	+ 1	1			100 to 10	
Eya	THE REPORT OF THE PROPERTY OF								1				***************************************			
Mouth]					1,3100	***************************************	-		***************************************			***************************************
Throat					ı											
AX1 Lia	***************************************		(2)		(2)	(2)	(2)	1			theset.	4.4				
Forest	**************************************	PRESENTATION OF THE PROPERTY.							I							
Umbilicus	Astronomical tentral formation and the state of the state	+(2)	- AHEBIRI BALKASKE ANGER						+1							
Groin	+ (2)	+1	(2)	+1	+ 1		(2)	+	+	+1	+	i			***************************************	
Glans	+1	+ (2)	÷1	+	+1	+	(2) -	(2)	+1	(2)	+1	+ 1				
Anal fold	***************************************	1000 PROPERTY (110 PROPERTY (1							(2)							(2)
Feces	-								+		+			+		
Toos	линименталиний политический политический политический политический политический политический политический поли	(2)														(3)

positive coagulase test nogative coagulase test Number of different strains

Subject 31 - EXPERIMENT VIII TABLE 10 -- Continued

							Sam	Sampling	I	riod						
Body Area	1	83	တ	4	5	9	7	8	1 1	9 10	11	12	13	14	15	16
Scalp		+(2)							+							+ (2)
Ear	1		1	1	_	+(2)	+	+1	+1	+1	+(2)	(2)				
Nose	(6)_	+1	+(2)	+ (2)	+	+1	+ (2)	(3)	_(2)	_(3)	(2)	(†)				
Eye									-					Í		
Mouth										+						
Throat																
Axilla	(3)	(2. ~	1	(4)	(2)	(3)	-	_(2)	(2)	_(2)	_(2)	_(2)				
Forearm		+1							- {3}							_(2)
Umbilicus		(4)+							+							ì
Groin	+1	(3)	+ (2)	+(2)	+(2)	+	+1	+	+(2)	+	+1	+1				
Glans	(3)	+(2)	+(3)		+ 1	+(2)	+(2)	+	+	+ 1	+(2)	+ 1				
Anal fold	(2)								+(2)							+
Feces									+							
Toes	(2)								ns							+(5)
	 :	,														

positive coagulase test negative coagulase test no sample Number of different strains

1 Sa ()

TABLE 10 -- Continued

Subject 32 - EXPERIMENT VIII

+(2) -(2) -(3) 16 i + 14 13 -(2)+(2) ⁺(2) 22 +(2) +(2) 11 +1 + 1 + 1 Period 9 | 10 + 1 + 1 . + 1 -(3) ⁺(2) +(2) +(2) + + +1 + 1 ŧ + 1 Sampling -(2) ⁺(2) + 1 œ +(2) ±(2) +(2) + + ı -(2) +(2)+ 1 + 1 9 -(2) -(2) က + 1 + ÷(2) + 1 ÷ ı + 1 4 +(2) -(2) တ ⁺(2) +(2) -(2) +(2)+1 + 1 -(2) -(2) 1 + 1 ı Body Area Umbilicus Glans penis Anal fold Forearm Throat Feces Axilla Groin Mouth Toes Scalp Nose Eye Ear

+ = positive coagulase test - = negative coagulase test () = Number of different strains

Subject 33 - EXPERIMENT IX TABLE 10 --- Continued

							Sam	Sampling		Period						
Body Area	1	2	တ	4	5	9		တ		10	11	12	13	14	15	.TB
Scalp		+(2)							+(3)			+1				
Ear		+1							+ -(2)			-(2)				
Eye		+							-(2)			1				
Nose	ı	i	1	-(2)	-(2)	-(2)	+1	+	+1	, (2)	+	+1				***************************************
Gingival										+						
Throat					+			+		+	+	+				
Axilla	+	+ -(2)	+ 1	+ 1		+ -(2)	-(3)	1	1	-(2)	-(3)	-(2)				
Forearm		1				,			+1			-(2)				
Umbilicus		+1							-(2)			. 1				
Groin	+1	±(2)	+1		+1	1	+1	1	1	I	+1					
Glans pents	l n	+1	+1	1	+ (2)	-(2)	-(3)	-(2)	ı	ı	-(2)	ı				
Anal fold	+1	+1	÷	1	+ :	+ 1	+1	+1	+1		ı	- (2)				
Toes	-(3)	-(3)		-(2)		+1	ı	ı	-(2)	÷1	1	+				
Electrode		÷							+ (2)			-(2)				
	:	•														

+ = positive coagulase test - = negative coagulase test Feces - No micrococcaceae () = Number of different strains

TABLE 10 -- Continued

Subject 34 - EXPERIMENT IX

							Sam	pling	Period	tod						
Body Area	1	2	3	4	2	9	6-	8		10	11	12	13	14	15	16
Scalp		+1							+(2) -(2)			+				
Ear																
Eye									-(2)							
Nose	1	ı	ı	ı	-(2)	1	+1	+1	+1	+1	+1	+1				
Gingival					1	ı	+(2)									
Throat									+		+					
Axilla	+	ı	,	,	-(2)	i	i	-(2)	ı	+		+1				
Forearm		+1							+1			+1				
Umbilicus		+							+1			+				
Groin	±(2)	+(2)	÷	+	+1	ţ	+	+	+(2)	+1						
Glans penis	1	+(2)		+1	+(2)	↑ (2)	+(2)	+ 1	- (2)	+(2)	÷	+				
Anal fold	ı	+1	-(2)	-(3)	+1	1	+ -(2)	-(2)	+(2)	+	+1	+(2)				
Feces																
Toe	+ -(2)	-(2)		+ 1		-(2)	+ 1	-(3)	-(2)	ı	1	-(2)				
Electrode	+											-(4)				

positive coagulase test negative coagulase test Number of different strains

TABLE 10 -- Continued

Subject 35 - EXPERIMENT IX

							Sam	Sampling	Per	lod						
Body Area		2	တ	4	5	9	7	8	9 10	10	11	12	13	14	15	16
Scalp		+1							+(2)			1				
Ear		I							+(2)							
Eye	-(2)								1			+				
Nose	+1	+(2)	+1	+1	+1	+1	+	+(2)	+(2)	+(2)	+(2)	+1				
Gingival							-(2)					1				
Throat									1			1				
Axilla	+ (2)	+ 1	-(2)	+ 1		1	1		+ 1	+(2)		1				
Forearm	,	+1							1			÷1				
Umbilicus		-(2)							-(2)			. –(2)				
Groin	+(2)	+(2)	-(3)	+(2)	+ :	+(2)	+(3)	+(2)	+(2)	+ 1	1	+(2)				
Glans penis	-(2)		+ -(2)	+ -(2)	+ -(2)	-(2)	+	+(2)	+(3)	+ 1	+(2)	ŧ				
Anal fold		+ i	-(2)	+(2)	+ 1	+ 1	+ -(2)	+ 1	+ 1	-(3)	+ -(2)	+(2)				
Feces										÷						
Toes	+1	±(2)	1	-(2)	+1.	-(2)	,	+1	-(2)	(2)-	-(2)	+1				
Electrode		8										-(4)				

positive coagulase testnegative coagulase testNumber of different strains

TABLE 10 -- Concluded

Subject 36 - EXPERIMENT IX

							8 m	Sampling		1 od						
Body Area	-	2	8	4	20	8	7	8	9 10	10	11	12	13	14	1.8	16
Scalp		++							+4			+				
Ear									+1			1				
Eye																
Nose		1			I	-(2)	1	1	1	1	-(2)	+				
Gingival				1												
Throat									I		1					
Axilla		-(2)	-(3)		-(3)	1		1	ı	,	ı					
Foregrm		÷ -(2)							+(2)			-(3)				
Umbilicus		+ -(2)							-(2)		<u>-</u> 1	ı				
Groin	+ 1	+ 1	+ -(2)	-(2)	-(2)	(3)	-(3)	-(2)	(2)		-(3)	1				
Glans pents				-(3)	+ 1	+ 1	-(3)	+ -(2)	1	-(2)	+ 1	+ -(2)				
Anal fold	1	+ 1	+ 1		÷ I	,		ı	+	-(2)	+ 1	+				
Feces						+	+	+1		+	+					
Toe		+(2)	- (2)	-	+		(2)-	-(3)	-(2)	-(2)		-(2)				
Electrode									•			-(5)				

positive coagulase test negative coagulase test Number of different strains

TABLE 11. OCCURRENCE OF NEISSERIA

							Samp	Sampling Period	erlod								
Subject	Body Area	н	2	ဇ	4	ī,	8	2	80	6	10	11	12	13	14	15	16
	Umbilicus							×									
17	Groin														×		
	Glans penis	<u> </u>				×											
	Nose								×								
,	Mouth		×														
	Throat														×		
	Glans penis				×												
	i. G							×			×						
	Eve				×												
	6 80 00 00 00 00 00 00 00 00 00 00 00 00								×								
	Throat						×										
19	Ax111a					×											
· 	Umbilicus											×					
	Grofn										×						
	Glans penis	×															
	Scalp			×													
	Nose										×						
50	Throat										×						
	Axilla												×				

TABLE 11 --- Continued

							Samp	Sampling Period	erlod								
Subject	Body Area	1	83	ဇ	4	5	8	7	æ	6	10	11	12	13	74	15	16
	Throat				×							×					
21	Axilla								×								
	Groin								<u>-</u>								
	Glans penis	-								×		×					
	Ear													×			
22	Throst													×			
	760.00 880.00					×											
23	None																
26	7.87													×			
.	Feces						×										
25	Nome							.×	×	×	×					×	
	Mouth	×		_×	×	×	×		×	×		×		×	×		×
	Throat	×	×	×	×	×	×	×	×	×		×		×		×	
26	Nose				×		×		×	×							
	Mouth			×	×		×		×	×	×		×	×	×	×	×
	Throat		×	×	×	×	×	×	×	×	×	×	×		×	×	×
27	Noss								×								
	Mouth						×			×	×	×		×	×	×	
	Throat				×	×	×		×	×	×	×	×	×	×	×	×
The transmission of the same																	

TABLE 11 --- Continued

				:	i		Samp	Sampling Period	ertod								
Subject	Body Area	1	63	တ	7	5	8	7	80	6	10	11	12	13	14	16	16
28	Mouth			×	×	×	×		×	×	×	×	×	×	×	×	
	Throat		×	×		×	×		×	×	×	×			×	×	×
23	Nose								×								
}	Mouth	×		×	×	×					×	×	×	×	×	×	×
	Throat	×				×		×		×	×	×	×	×	×	×	×
	Glans penis					×				×					×		
	Feces													×			
30	Nose						×			×							Ī
	Mouth	×	×	×	×	×	×			×	×	×	×	×	×	×	×
	Throat	_×	×	×	×		×	×		×	×	×	×	×	×	×	×
	Groin											×					
31	Nose	-										×			×		
	Mouth	×	X	×			×	×	×	×	×	×	×	×	×	*	×
	Throat		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Axilla												_	×			
32	Mouth	×	×		×		×	×		×	×	×	×	×	×	×	×
	Throat	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×
33	Throat		×		1						×	×	×				

TABLE 11 --- Concluded

							Sempl	Sampling Period	eriod								
Subject	Subject Body Area	-1	83	တ	4	80	89	2	æ	8	10	11	12	13	7.7	1.5	18
34	Gingival			×						×							
	Throat	×							×								
35	Gingival		×														
	Throat						 ×			×	×		×				
36	Gingival	×															
	Throat	×		×	×		×	×			×		×				

TABLE 12. OCCURRENCE OF ENTEROBACTERIACEAE IN BODY AREAS

		***************************************			**************************************		**************************************	lampling Persod	**************************************		***************************************		19 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -	***************************************		Manuel Manuel Later Late
-		~	-	-	٠	•	•	=	-	2		12	13	*1	21	
MAN-E, coli									RABLET, cult							***************************************
Asriba- Aerobacter 80sl-E. coll						exe-E. coll				Statist coll		7	THE STREET STREET	***************************************	***************************************	**************************************
Astile, ers	- Har	Axille, gruin glane prole- glane genie- Aerobacier		Kroin. Aerobacter		Aerobaoter		Minal		Aerobacter	Arobacter Arrobacter Anni-E. coll no type		Acrobacier			
Authe- Aerobater Mal-E. coll	==	Mani-Z. coll asina . Aerobaster		Anal-E. cott		Anal. E. coll ealine Atcaligenes	thrust-				anal. E. coli no type		Attioner.			***************************************
		Krola- Kristella Aerobauter			Kroln- Kiebelella Aerobaoter							200	1		- # T	
ADAL-E. cell no typs Alx. diepar	oo II	K.R E. coll gang genter no type Alt, dispar angle F. coll no type A'lt, dispar	Alene pente-		A.R E. coli no type Alk, depar	E.pf., soll no type Alk, dispar	Alk, dispar Alk, dispar Alk, dispar Alk, dispar	Alk, diepar							***************************************	History and History and American
			Fallern 4-C		Klebelella Aerobacter	Klobeiella Aerobauter	Klebeiella Asrobacter	Kluin- Klebelella Asrubacter	Klobeielle Aerobieler	Kroin- Klebeiella Aerobacier	REMOTE ASTOCIAL	Klata Reseight Aerobeoler				-
						1001001001001001001	- Albertannannannannannannannannannannannannann	D			-			APRILIA PROPERTY		-
Holy-E. con	120		(c) • (c)					Alk. dieper	Ak. depar		Sifter (-)			Right - work	Alt. diepes	
						MITTER (-)					Kruh. Asivbanter Asivbantes	KEID: Asrobactes				Aller court
nogget no tyre	tos	noste t. coll hose. F. coll									M				Erg. E. coll	
TRANSPORTED THE	Mandania	"Medition of the Contract of t	700 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 TO 100 T							THE PROPERTY OF THE PERSON NAMED IN COLUMN		THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED I				

TABLE 12 --- Concluded

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e de la constante			7 Deed District State of				Awaii Mark	111111111111111111111111111111111111111	
(Hardington)	#1 m							2000	a de la companya de l
	**************************************	Jane Renia	213 246	THE REPORT OF THE PARTY OF THE					
	1. 14	a plie Criste. Salate Reside							
	-	Man Renia.				Mark, colf			
	01	den erries				Mary II.		Paringeness	Callera ep.
	•	Libre benit - Althe Penis - Alem benished penishone					eineirai. Sallineriin. Sallineriin. Sallineriin. Oo iyye	Picker aligned	ALNIBLAND MENTANDOR: ALEXIS EVENIA - I FRENCE SP.
Samuling forth	01	Kings profit - Kiths profit - Kings profit - Kings profit				Military Military			Fritade ep.
	•								Marianes Marianes Marianes
	-	Alam herya-							Mailer Ser Brufene op, Bittlenes (Mailer Ser Mailer Ser
	•								State Ner.
	7	stane prefit.					alphy Denie	Froles of	Pulling Pil.
	c		Mg.gemib)-	Figure R. C. Follows R. C. C. C. C. C. C. C. C. C. C. C. C. C.					Frederic sp. Western Sp.
	-			Alk, dispar Alk, dispar 6				Mily A. so [Wily A. so Lether type further type	Frederice.
	_			ADAL-R. coll ac type Alk. dispar	kg. k. coll		Anal-K, coll ho lyin Antokapler	Park t. rott	Marie Rente
•) Sepigne	**	2	#	â	2	×		*
	Ľap.	3				3			

TABLE 13. RECOVERY OF ENTEROBACTERIACEAE FROM FECES

				Sampling Period	Period			
Number	1	2	က	4	R	9	4	80
17	E. coli Saline +			Aerobacter E. coli Salin3 +	E. coli no type	Aerobacter	E. coli Saline +	
18	E. coli Saline + 0119:B14	Aerobacter E. coli 0119:B14	Aerobacter E. coli Saline +	E. coll Saline +	E. coli no type	E. coli no type	E. coli Saline +	E. coli Saline +
19		E. coli Saline +	Aerobacter	Aerobacter E. coli Saline +	E. coli Saline +		E, coli Saline +	E. coli Saline +
20	E. coli Saline + 74:011B	E. coli Saline +	E. coli Saline +	Aerobacter E. coli no type	Aerobacter E. coll	E. coli Saline +	E. coli Saline +	E. coll no type
Subject				Sampling Period	Period			
Number	6	10	11	12	13	14	15	16
17	Aerobacter E. coli Saline +	Aerobacter	E. ccli Saline +					
18	Aerobacter							
19	E. colf Saiine +							
20	E. coli no type							

TABLE 13 --- Continued

Subject				Sampling Period	; Period			
Number)r 1	2	က	4	2	9	4	8
21		Klebsiella Aerobacter		Klebsiella Aerobacter	E. coli no type Klebsiella	E. coli 0125:B15	E. coli 0125:B15	E. coli no type
22	Alk, dispar E, coli no type	r Alk. dispar E. coli no type	Alk. diepar	All 012	Aeropacier Alk. dispar	Weak Alk. dispar E. coli no type	no type Very weak Alk. dispar E. coli no tyne	Pattern S-C E. coli no type
23	E. coli 0127:B8		E. coli 0127:B8	E. coli no type Klebsiella Aerobacter	E. coli no type Klebsiella Aerobacter	Pattern S-C E. coli 0126:E16 no type	*Pattern S-C	*Pattern S-C
24	E. coli no type	E. coli no type		E. coli no type	E. coli no type	E. coll no type	E. coli no type	
Subject				Sampling Period	Period			
Number	6	10	11	12	13	14	15	16
21			E. coli no type					
22	*Pattern S-C E. coli no type	*Pattern S-C * Pattern S-C E. coli E. coli E. coli no type no type		*Pattern S-C *Pattern S-C E. coli E. coli 0126:B16 0126:B16	*Pattern S-C E. coli 0126:B16			
23	*Pattern S-C	*Pattern S-C *Pattern S-C	S-C la ter	Ö	*Pattern S-C			
24	E. coli no type	E. coli no type 0127:B8		E. coli 0127:B8				
								

* Pattern S-C (Shigella - Coll)

TABLE 13 --- Continued

				Q XXX	period			
	And the state of t			Sampring rerve	200	8	7	œ
Subject	*	6	3	4	2	>		E. coli
Number	E. coli			E, coli	M 11	E. coli no type	E. coli Poly B	
22	Poly B	no type	no type		1	Alkalescen	Weak Alk.	Weak Alk.
e c	Alkalescen	Alk.	Alkalescen	Alkalescen A	Alkalescen dispar	dispar	dispar	
0.7	dispar			1	Aerobacter	E, coli	E. coli	E. coli
t		E. coli	ter	no type		no type Pattern I*	no type Pattern I*	Aerobacter
7			no type	Parietii +	2014	E. coli	E. colt	E. coli
86	E. coll	E. coli		E. coll no type		no type	no type Pattern II*	no type Pattern II*
3	25.00				Down			
				Sampling Kerica	rei ion		15	16
Subject			11	12	13	14	0.4	
Number	63	OT	**	Acabootor				
25	Aerobacter	Aerobacter	Aerobacter	E. coli	E. coli no type	E. coli no type		
		-		76				
5								
07			The state of the s		E. coli			-
26	Aerobacter	Aerobacter	Bet	Aerobacter	no type Aerobacter	E. coli no type		And the second second second second second
3			datarred		7.7	E coli		
86	E. coli	Pattern I*	E. coli	E. coli no type	E. com	no type		
	no type		ŧ	c. C. (Those not type Salmonella, Arizona, or Bethesda-Ballerui	se not type Sa	lmonella, Ar	izona, or Be	thesda-Baller
*	attern I - +-+	Pattern I - +-++ A/AG; Pattern II		1/H25 + G (DOC				

TABLE 13 --- Continued

C. Line				Sampling Period	d		
Number	1	2	3	4	5	9	7
29		Pseudomonas	E. coli, Poly B 0126:B16 Pseudomonas			E. coli, Poly B 9126:B16	
30		E. coli, no type	E. coli, Poly B NFT**	Aerobacter	Aerobacter E. coli, Poly B NFT*	E. coli, Poly B NFT**	
31	E. coli no type	E. coli, Poly B 0124:B17 0126:B16	E. coli, no type	E. coli, Poly B 0126:B16	E. coli, Poly A 0127:B8 026:B6 Poly B, 086:B7 0124:B17 0126:B16	E. coli, Poly A 0127:B8 026:B6 Poly B, 086:B7 0125:B17	E. coli, Poly A 0127:B8 026:B6 Poly B, 0124:B17 0126:B16
32	E. coli no type	E. coli, no type	E. coli, no type *Pattern S-C	E. coli, no type	E. coli, no type *Pattern S-C	E. coli, no type *Pattern S-C	E. coli, no type *Pattern S-C
	8	6	10	11	12	13	14
29	E. coli, Poly A 0127:B8 Poly B 0126B16	Aerobacter E. coli, Poly A 0127:B8; Poly B 0126:B16	Aerobacter	E. coli, Poly A 0127:B8;Poly B 0126:B16	E. coll, no type	E. coli, Poly A 0111:B4, 0127: B8; Poly B 0126:B6	Aerobacterr E. coli, Poly A 0127:B8; Poly B 0126:B16
30	E. coli no type Aerobacter	E. coli, Poly B NFT**	E. coli, no type	E. coli, no type	E. coli, no type Aerobacter	E. coli, no type	Aerobacter
31	E. coll, Poly B, 0124:B17 0126:B16	Aerobacter	Aeroba cter	E. coll	E. coli, Poly A 0111:B4, 0127: B8, 026:R6 Poly B, 0126. B16, Aerobacter	Aerobacter E. coli	Aerobacter
32	E. coli no type	E. coli, no type *Pattern S-C	E. coli, no type *Pattern S-C	E. coli, no type *Pattern S-C	E. coli, no type E. coli, PolyA 0127:B8; Poly B 0.25:B15	E. coli, no type E. coli, Poly B	E. coli, no type *Pattern SC

*Pattern S-C - Shigella-coli; **NFT = No further type

TABLE 12 --- Concluded

Subtoot				Sampling Period	Period			
Number		2	က	*	ß	9	*4	80
33	E. coll. Poly & Coll, no type	E. coli no type	E. coli Poly A	E. coli Poly A	E. coli Poly A	E. coli Poly A	E. coli Poly A	E. coli no type
	Aerobacter		NET**	NFT**				
	E. coli	E. coli	E. coli				E. coli	E. coli
34	no type	no type Aerobacter	no type	cter	Poly B 0126:B16	Poly B 0126:B16		no type
	E. coli	E. coli	E. coli	Aerobacter		E. coli	E. coli	Aerobacter
35	Poly A NFT**		Poly B NFT**		Poly B 0126:B16	Poly B 0126:B16	no type	
	E. coli	E. coli	E. coll	E. coli, Poly	E. coli, Poly Proteus sp.	Proteus sp.	E. coli	Alcaligenes
36	no type	no type	Poly A	A&B, NFT**	A&B, NFT**	Aerobacter	No type	Aerobacter Drotens an
		Actobacter	011:B4	ABLODACIEL	riotens sp.			Trotogo ab.
Subject		- Andrews in the state of the s		Sampling Period	Period			
Number	6	10	11	12	13	14	1.6	1.6
	E. coli	E. coli	E. coli	E. coli				
33	Poly A NFT**	no type	Poly A NFT**	Poly A NFT**				
	E. coli	Aerobacter	E. coli	E. coli				
34	no type	E. coli no type	Poly B NFT**	Poly B NFT**				
35	no spec.	E. coli no type	E. coli Poly A NFT**	E. coli no type				
36	Aerobacter Alcalizenes	E. coli	Proteus sp.	Alcaligenes				
	Proteus sp E. coli, Poly A, NF'I**	no type Proteus sp.		Aerobacter				

* Room area, aft table - Protues sp. ** NFT = no further type

TABLE 14. OCCURRENCE OF E. COLI IN THE FECES

V 17 Saline - 1 2 3 44 5 V 17 Saline - 1 2 3 44.01 pc 6.41 pc 6.019:B14 8aline - 1 6.019:B14 8aline - 1 6.019:B14 8aline - 1 6.019:B14 8aline - 1 8aline - 1 6.019:B14 8aline - 1 8	38	Saline Saliny .	Saline •	10	=	12	22	7.7
17 Salino -	13 06		Saline					
18 Saline + O119:B14 Saline + Saline + 20	200				Saline			
19 Saline Salin								
20 34line	Salino •	Saline - Saline -	Saline .		;			
22	· Saline ·	Saline . m	no type					
22 no type no type 0127:B8 23 0127:B8 24 no type no type 0127:B9 no type 26 27		&_			no type	-		***************************************
23 0127;B\$ 0127;B\$ no type 24 no type no type no type 25 Poly B 26 no type no type no type no type 29 no type no type no type 30 no type Poly B 31 no type Poly B, no 32 no type no type Noty B, no 32 no type no type no type no type 32 no type no type no type no type 32 no type no type no type no type				no type Pattern 3-C	no type Pattern 8-C*	0126:B16 Pattern S-C	0126:B16 Pattern 8-C*	***************************************
24 no type no type no type Poly B 20	no type 0126:B16	Pattern S.C. Pattern S.C. Pattern S.C. Pattern S.C. Pattern S.C. Pattern S.C. Pattern S.C.	-C. PatternS-C.	Pattern S-C*	Pattorn S-C*	Pattern S-C*	Pattern S-C*	Pattern 5-C
20		no type	no type	0127:B8 no type			0127:138	
24 no type no type no type 24 no type no type 25 no type no type no type 12 12 12 13 no type 13 no type 14 15 15 15 15 15 15 15	no type	Poly 11 n. type				no type	no type	no type
24 no type no type no type no type 29 Poly B Poly B 30 no type Poly B Poly B 31 no type Poly B no type Poly B 32 no type no type Poly B 33 no type no type no type Title B 34 no type no type Title B 35 no type no type Datterie.Co no type						***************************************	***************************************	
29 10 type	no type	no type Ino type					no type	no type
29 Poly B 5/126/1314 20 1/126/1314 20 20 20 20 20 20 20 2	no type no type	no type	type		no type	no type	no type	no typs
no type Poly B, no further type Poly B no type B17.0126: no type Datterils.Co no type patterils.Co no type	0126/810	Poly A. 0127 Bs. Edy B 0126: B16	127 Poly A. 0127; B. B. Poly B. 0126; B16		126:1316	no type	BP VA 0127	Paly A. 0127; B9. Paly B 0126: B16
no type filt, 5126: Bis no type 6126: Bis no type 0126: Bis no type no type pattern 8-C+ no type	Poly B, no Poly B, no further type	e type	Toly B. Do	to type	no type	no type	no type	
no type no typs pattern 8-Ce no type	Poly A, 0127: Poly A, 0127: Poly B, 0127: Poly B, 026: Poly B, 086: Po	Poly A, 0137; Poly A, 0127; Poly B, 066: Poly B, 0124; Poly B, 066: Poly B, 0124 BIT, 0126; BT 0124; BT 0126; BT 0126; 0126; B16	124:		E, coll	Poly A, 0111: B4, 026:B6 0127:B9 Poly B, 0126:B16	E. coll	
	no type no type hattern 8-Ce no type	no type	no type Pattern 3-C•	no type no type hattern 3-C. Pattern S-C.	no type Pattern 8-C	no type, Poly no type A.0127: Bs Pely B Poly B.0125:	o type Pely B	no type Pattarn S-C*
IX 33 further type to type further type further type further type no type	Poly A, no Poly A, no Inther type	Poly A, no lurther type no type	Poly A. Do further type	o type	Poly A. Bo further type	Poly A. no further type		
34 no type no type no type a type (1736.1816	Poly B Poly B	no type no type	no type	no type	Poly B. no Poly B. no hirther type	vely B, no urther type		
36 Pale to type to type Turther type 0726.B18	Poly B Poly B OTZGIBLE OTZGIBLE	no type		no type	Poly A. no further type	no type		
36 no type no type 1934 Roll Allither type further type	Paly A&B, no	no type	Rurcher type no type	no type				

TABLE 15. PATTERNS FOR UNIDENTIFIED CORYNEBACTERIA

	T							
Starch	Hydrolysis	#	ł	ŧ	I	ŧ	ŧ	i
S	Growth	+	+	+	+	+	+	+
Fermentation	Sucrose	1	1	ı	+ Acid	+ Acid	+ Acid	+ Acid
Ferme	Glucose	***	+ Acid	+ Acid	+ Acid	+ Acid	1	+ slight anaerobic acid
	Nitrate	1	1	+	+	+	+	+
Litmus	Milk	(no action)	•	1	1	ARC with beginning proteolysis	1	reduced
	on Gelatin	-1 -	+	+	+	heavy growth	heavy growth	heavy growth
Gelatin	Liquefaction	*	e e	1		!	ı	ŧ
Unidentified	Pattern	А	A^1	* M	в ^{1**}	2	Вз	B ⁴

This pattern seems to be related biochemically to both C. acnes and C. enzymicum, although there is no action on litmus milk. Gelatin liquefaction is absent.

ARC = acid reduced curd

^{**} Pattern is the same as E except there is some acid produced from sucrose.

TABLE 16. OCCURRENCE OF GRAM POSITIVE RODS
BY BODY AREA

Subject 17 - EXPERIMENT V

Body Area Lactobacilleae Bacillaceae striatum S+(a)
6
11,12,
2,3,7 13,14
ဗ

 ⁽a) Variety of C. striatum fermenting sucrose
 (b) pseudodiptheriticum
 (c) C. enzymicum
 Numbers represent sampling period

TABLE 16 --- Continued

Subject 18 - EXPERIMENT V

		***************************************			Corvnebacterium	cterium					
Body Area	Lactobacilleae Bacillaceae striatum	Bacillaceae	striatum	S+(a)	pseudo(b)	(c)-zue	xerosis	acnes	A	Pattern B S	n Sp.
Eye							8, 13				
Ear		7,10,13									
Nose	10		8,10		7						
Throat	2, 3, 5, 10, 14										
Axilla			7, 10			-					
Umbilious			7,10,12								
Groin											
Anal Fold		1,9,12									
Feces	1, 3, 4, 10, 11,										
Scalp		3									
Mouth											
Forearm											
Glans Penis					2,3						
Тоев											
4-1											

(a) Variety of C. striatum fermenting sucrose (b) pseudociptheriticum (c) C. enzymicum Numbers represent sampling period

TABLE 16 --- Continued

Subject 19 - EXPERIMENT V

					Corvnehacterium	aterium			; 		
Body Area	Lactobacillese Bacillacese striatum	Bacillaceae	striatum	S+(A)	(q)opnesd	(o)-zue	xerosis	gones		Pattern B Sp.	# E E
Еуе									-		
Ear					12			8			
Nose	9, 10, 12, 13, 14	7	7								
Throat	2, 3, 4, 10, 15		14		1,2,8,4,						
Axtlla											
Umbilions											
Groin											
old			5, 6, 7, 9,								
Ресев	10, 1, 8, 9, 11,		10		9						
Scalp											
Mouth					က						
Forearm											
Glans Pents					3,4						
Тоев			1,3								
			4	1							

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum Numbers represent sampling period

TABLE 16 --- Continued

Subject 20 - EXPERIMENT V

					Corynebacterium				ה	4+0	S
Body Area	Lactobacilleae Bacillaceae striatum	Bacillaceae	striatum	S+(a)	(q)opnəsd	(c) ^{-zuə}	xerosis	acnes	¥ W	3 A S	Sp.
Eye							8				
Ear					4						
Nose	5, 10, 13	13									
Throat	3, 5, 7, 8, 9, 10, 14										
Axilla		10									
Umbilicus											
Groin					4						
Anal Fold					2, 3, 4, 12, 13, 14						
Feces	7,8,9,10,1, 4,11										
Soalp											
Mouth	14										
Forearm											
Glans Pents			4,5								
Toes			2,3								

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum Numbers represent sampling period

TABLE 16 --- Continued

Subject 21 - EXPERIMENT VI

					Corynebacterium	cterium				Q ++ 0 Q	
Body Area	Lactobacilleae Bacillaceae stri	Bacillaceae	striatum	S+(a)	(q)opnəsd	enz-(c)	xerosis	acnes	Y W	B	Sp.
								2			
Lar	5, 11, 12	11						12			
Nose	2				2, 10		14	7, 4			
Throat	3,8,9,10,14, 16	4						æ			
Axilla					10			4,14,16			
Umbilious											
Groin	១				10		14	6, 5			
Anal Fold											
Feces	1, 3, 4, 8, 9, 10, 11, 12, 13, 14	13						5, 1			
Soalp											
Mouth	3, 5, 10, 11, 13, 14							. 4			
Forearm											
Glans Ponis					12						
Тоев											
								,			

(a) Variety of C. striatum fermenting sucross (b) pseudodiptheriticum
(c) C. enzymicum
Numbers represent sampling period

TABLE 16 --- Continued

Subject 22 - EXPERIMENT VI

					Corynebacterium	cterium				* 4 4 9	
Rody Aran	Tactobacillese Bacillacese striatum	Bacillaceae	striatum	S+(a)	(q)opnesd	(c)_sue	xerosis	acnes	Ą	Fairer II	Sp.
1				8							
Ear	13, 9										
Nose	14	4			2						
Throat	14, 12	12						3	2		
Axilla		14			12		14				
Umbilious											
Groin	14				6		16	1,5,6,7,			
Anal fold											
Feces	1,4,5,9,11,	Neumannia projektiva karaka karaka karaka karaka karaka karaka karaka karaka karaka karaka karaka karaka karak						6			
Scalp											
Mouth	က				15			7,8,5			
Forearm											
Glans penis	5, 8, 8, 7, 12		14				12	8			
Тоев	3	3,2									
		•									

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum Numbers represent sampling period

TABLE 16 --- Continued

Subject 23 - EXPERIMENT VI

					Corynebacterium	cterium			F	1 0 4 7 0	
Body Area	Lactobacilleae Bacillaceae stri	Bacillaceae	striatum	S+(a)	pseudo(b)	enz-(c)	xerosis	acnes	A F	rattern S	Sp.
Eye											
Баг		12,5									
Nose								5			
Throat	15, 5, 11, 12	11,12			23			3,6			
Axilla		14			14						
Unbilicus	1	1	Н						7		
Groin	11,13,10,1	1					10,15	4,5			
Anal fold	1	1			4						
Feces	1,4,8,3,9,11, 13,6,14	1,9,8						4,5,6,7			
Scalp								3		-	
Mouth	2,4	2,4	11					8,14			
Forearm	1	1									
Glans penis	11,13,9,12,6	L			12		1,10	5,3			
Toes								3			

(a) Variety of C. striatum fermenting sucrose
 (b) pseudodiptheriticum
 (c) C. enzymicum
 Numbers represent sampling period

TABLE 16 --- Continued

Subject 24 - EXPERIMENT VI

					Corynebacterium	cterium				\$ + 0 + ÷ 0 P	5
Body Area	Lactobacilleae Bacillaceae	Bacillaceae	striatum	S+(a)	(q)opnəsd	enz-(c)	xerosis	acnes	¥	A	Sp.
Еуе											
Ear								ស			
Nose					10			7,4			
Thros.t	2,3,11,14,13 5	2,5						12			
Axilla.								8,4,12, 14			
Umbilicus		1,2							2		
Groin	14	13						1, 3; 4, 16, 13			
Anal fold	2,1	3						1,2			
Гесев	1,4,11,2,9	1			7		10	5,6,9			
Scalp								က			
Mouth	14,7,5,4										
Forearm	2	2						Н			
Glans pents	8,14,5	14			12			2,6			
Toes								က			

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum Numbers represent sampling period

Subject 25 - EXPERIMENT VII TABLE 16 --- Continued

			وستالسطان عمادي سينهو سينته		Corynebacterium	cterium			-	
Body Area	Lactobacilleae Bacillaceae stri	Bacillaceae	striatum	S+(a)	(q)opnəsd	enz-(c)	xerosis	acnes	A	B Sp.
Ear		8,16							6,8-18	
Nose			2,3,5-16							
Throat	3,7-10				1,3-5,7-9 11,12, 14-16					
Axilla		9								
Umbilicus										
Groin			9,11						2,4-7. 9-16	
Anal fold									1-3	
Fесев	5,10									
Scalp									1	
Mouth	1,3,5-10				1,5,6,8- 11,14,15					
Forearm		2								
Glans penis			4,6-16							
Тоев				1,2,3						

(a) Variety of C. striatum fermenting sucrose
(b) pseudodiptheriticum
(c) C. enzymicum
Numbers represent sampling period

TABLE 16 --- Continued

Subject 26 - EXPERIMENT VII

					Corynebacterium	cterium			ρ	Dattern	
Body Area	Lactobacilleae Bacillaceae stri	Bacillaceae	striatum	S+(a)	(q)opnesd	(c) ^{-zue}	xerosis	acnes	A.	В	Sp.
ă .											
Ear									1-10, 12,14, 15		
Nose				13,14, 16					2,9-11, 14	_	4,6,7, 8,13
Throat	1,3,6										1-4,7- 12,14, 15
Axilla		4							7,8,13, 14,16		
Umbilicus										o designation of the second	
Groin				2-16							
Anal fold				1,2							
Feces	3										
Scalp											e
Mouth					1-6,8-12, 14,15						
Forearm											3
Glans penis			12-14,16	2,4,6-11	1						1
Toes											1,2,3

(a) Variety of C. striatum fermenting sucrose
(b) pseudodiptheriticum
(c) C. enzymicum
Numbers represent sampling period

Subject 27 - EXPERIMENT VII TABLE 16 --- Continued

					Corynebacterium	cterium			-	***************************************	
Body Area	Lactocacilleae Bacillaceae stri	Bacillaceae	striatum	S+(a)	pseudo(b)	enz_(c)	xerosis	acnes	A	Fatter	Sp.
Eye											
Ear		9							2-6, 8-15		
Nose					1-9,11-14, 15						
Throat	1-13	13			1,4,6,8- 10,12,14, 15						
Axilla			4,5,12, 13-16						6-11		
Umbilicus		Ţ									
Groin			8-13,15						2,4-7		
Anal fold			1-3								
Feces	1-8, 10-13										
Scalp											3
Mouth	3-8,10-12, 15										1,4-11 15
Forearm											
Glans penis				3,4,6,8, 9,10-16							
Toes				1							

(a) Variety of C. striatum fermenting sucrose
 (b) pseudodiptheriticum
 (c) C. enzymicum
 Numbers represent sampling period

TABLE 16 --- Continued

Subject 28 - EXPERIMENT VII

	Ţ		- 9	9							\Box			\neg	7
	Sp.		7,13,	14,16											4
4+6			_												
ρ	¥ W					2,4,5, 6,7, 9-16		4,5, 7-16	1,2						1,2,3
	acnes														
	xerosis														
cterium	enz_(c)														
Corynebacterium	(q)opnəsd								4 marie de l'accession de l'accessio			4,5,6-8, 10-12,14, 15			
	S+(a)				1,3,4-9 11,13, 14,15									4,6-16	
	striatum														
!	Bacillaceae				12					8,10					
	Lactobacilleae Bacillaceae striatum		The state of the s		x					1,9			The second secon		
	Body Area L	Eye	Ear	Nose	Throat	Axilla	Umbilicus	Groin	Anal fold	Feces	Scalp	Mouth	Forearm	Glans penis	Toes

(a) Variety of C. striatum fermenting sucrose
 (b) pseudodiptheriticum
 (c) C. enzymicum
 Numbers represent sampling period

TABLE 16 --- Continued

Subject 29 - EXPERIMENT VIII

					Corynebacterium	cterium			P	4+6	5
Body Area	Body Area Lactobacilleae Bacillaceae stri	Bacillaceae	striatum	S+(a)	(q)opnəsd	enz-(c)	xerosis	acnes	A	ratiein B	Sp.
Eye											
Ear					15						
Nose		14	æ		5,7,10, 13,15,16				10,14		
Throat		3,7	10						1.4		
Axilla			2,6	2,5,6,							
Umbilicus				ဗ							
Groin		13	2,5	16							
Anal fold					1	9				1,2,3	9(3)
Feces	13		13,14		13	7,11					11(3)
Scalp				3							
Mouth									9		
Forearm											
Glans penis				4, 12, 16							
Toes				1							
The second											
									:		

(a) Variety of C. striatum fermenting sucrose
(b) pseudodiptheriticum
(c) C. enzymicum
Numbers represent sampling period
(3) C. hoagil

TABLE 16 --- Continued

Subject 30 - EXPERIMENT VIII

\bigcap			8	7							T					
=	Sp.	 15	2, 7, 8, 16						3(1)							
Dattera	8				***************************************					* *************************************						
٥	¥									16			6		-	
	acnes															The state of the s
	xerosis															
sterium	(c) ^{-zue}		5,6,14													
Corynebacterium	(q) ^{opnəsd}		10				15		3							
	S+(a)		1,7		1,2,6- 8,10,15		2, 3, 4, 6,9,16						1,5,6, 14,16			
	striatum							1,3	10,11,13	A Province on the state of constants of the state of the						
-	Bacillaceae														· One of the contract of the c	
	Lactobacilleae Bacillaceae striatum						Parkerson of the same of the s		1,2,5,13					Annual designation of the contract of the cont	the last contract of the last	
	Body Area I	Ear	Nosc	Throat	Axdlla	Umbilicus	Groin	Anal fold	Fecos	Scalp	Mouth	Forearm	Glans pents	Toes		

⁽a) Variety of C. striatum fermenting sucrose
(b) pseudodiptheriticum
(c) C. enzymicum
Numbers represent sampling period
(1) C. avidum

TABLE 16 --- Continued

Subject 31 - EXPERIMENT VIII

		b.			Corynebacterium	cterium			-	00++00	ſ,
	Lactobacilleae Bacillaceae stri	Bacillaceae	striatum	S+(a)	(q)opnəsd	enz-(c)	xerosis	acnes	A A	Ä	Sp.
Eye											
Ear			4								
Nose				1,9					3, 16		
Throat	1,2		14								
Axilla			5, 14-16	14		15				2, 3, 10 11, 13, 16	
Umbilicus				2		9					
Groin				1, 2, 5-9 $14-16$							
Anal Fold				1-3		9					
Feces	2, 13										
Scalp								_			
Mouth											
Forearm											
Glans Penis				1,2,5,7-0 11,12,16		10, 15					
Toes											

(a) Variety of C. striatum fermenting sucrose
 (b) pseudodiptheriticum
 (c) C. enzymicum
 Numbers represent sampling period

TABLE 16 --- Continued

Subject 32 - EXPERIMENT VIII

					Corynebacterium	cterium				7	
Body Area	Lactobacilleae Bacillaceae	Bacillaceae	striatum	S+(a)	(q)opnasd	(c)-zue	xerosis	acnos		Pattern B S	rn Sp.
Eye						<u> </u>					
Ear				7							
Nose				1, 2, 14	5,7,8 13-15	83					
Throat	1										
AxIIIa			11, 13,								
Umbilious											
Groin		13	11	3,5,6		2,4					(4)
Anal Fold										1.3	1/2/
Fecos					5	5					(4)
Scalp		4			The second of second se				6		1, _,
Mouth	7, 14	1, 16									
Forearm					***************************************						
Glans Penis			6,11	4		3,8					₆ (2),
Toes				8		, p					1,3
					-			-			_

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum Numbers represent sampling period

(1) C. avidum, (2) C. pyogenes, (3) C. hoagii, (4) C. acnes

TABLE 16 --- Continued

Subject 33 - EXPERIMENT IX

	Looto		Cot yneb	Corynobacterium				Pattern		And the Principles of the Prin	***************************************	
Body Area	bacillone	striatum	pseudo (b) enz-(c)	cnz-(c)	xerosts		٧	B	B	B ²	133	B ⁴
Scalp		12				1.2		T NOW 1 NOWER PER	MARKET STATE OF THE STATE OF TH	, , , , , , , , , , , , , , , , , , ,		assa stansjatia etis
Ear	i id di en per de les per de les per de les per les per de les per de les per de les per de les per de les per		2.7			12					;	BREEZ/STEVANIA 1994 A
Eye		* ****		* X X X X X X X X X X X X X X X X X X X		21						may 1 1 phone 1
Nose *	d auto saato marabonata had a delinia statutudud	3, 10	1, 4, 6, 7, 12	12 2(13)	. X . X . X . X . X . X . X . X . X . X	6,7,11						1
Ginglyal	No. and the last lates between sake produce consequences.				. —	3,6						a to cables at any
Throat		4		7(13)						- 1		
Axilla	**************************************					1,4,6,7		က				
Foroarm	rede . villa interioriente	**	:		0							a fellenstanger va
Umbilleus	A. California de l'Alle des sus que de la california de l'Alle de	. 23	a de constante de		-	2,0,12		2	Sangane W berteiteiter a sie gefes 3 % of	n remain at remains		***************************************
Groin		1, 3, 6, 7, 9, 10, 11	man and an analysis of the state of the stat		≎1 ≎	6, 9, 10, 12	4, 5	4,9,11		1		***************************************
Gluns ponts		u, 8, 9, 12	2, 7, 11		01	1, 3, 4, 5, 6, 10, 11, 12						***************************************
Anni fold		1,23,8, 12			2,9	4, 5, 6, 10	-	4,11,12	1,6	The same of the same	5,6	***************************************
6,0008	1-3, 7,8, 12	The state of the s				Well of the state	eriebi opriesto se de la constitución de la constit	RECUES ORNERS. ME VERENNERS MORTERER FIRE ()	A PARE HARM AND AND AND AND AND AND AND AND AND AND	ameetika deserta esta esta esta esta esta esta esta es		Hen Habitevitalides
Toos we wanted		0, 10	0			6, 8, 11, 12	HEAD TO CHEET THE STATE OF THE	A RECOCO. GOARD & RESPONSABLEMENTS RELATED BEING	HARRESTANDER WELNESTANDERSTANDERS	despite crosses we		***************************************
high statements of pair one-content and their calls of the water we can be a been been as a being or called the being the a libraries of the statement of the s	has not be trade to see to a true may sell	physical particular represents a prominerant	racionitara de monte de la company de la company de la company de la company.	A CORMISSION TO SELECT TO SERVICE SERV								

" Bacillacono 5th sampling period
(b) pseudodiptheriticum
(c) C. onzymicum
Numbers represent sampling period
(13) This pattern seems to be biochemically related to C. onzymicum although the action on aftrate is absent.

TABLE 16 --- Continued

Subject 34 - EXPERIMENT IX

	$\mathcal{B}_{\frac{1}{4}}$					9									
	B3														111
	13.2					ည		σο				9		\	
1	\mathbf{B}^{I}								12		1,2,4, 5,8	8,9,11			
Pattern	В				11	12					10,11,12	12			
	A^1							သ		2		5	6		
	A	2	9,12		2, 3, 4, 9 $10, 12$		3	1,3,5,8, 10,12	***************************************	3	1,3,10,11	2, 6, 8, 11	3,4,6		6,7,8
	xerosis											1,3			4
cterium	enz(c)								-		8(R)				
Corvnebacterium	(q) opnesd				1,3,6,7,					12	t-	10,2			
	striatum				7			2, 4, 9, 11, 12	12		2,4,5, 6,8	4,5,7	1, 2, 3, 4, 6, 7, 8, 9, 12		
,	Lacto- bacilleae					1,4-8,10-12	1-10, 12				The state of the s			1,2,4,5,7,10-12	
	Body Area	Scar	Ear	Eye	Nose	Gingival *	Throat	Axilla *	Forearm	Umbilicus	Groin	Glans penis	Anal fold	Feces	Toes

* Bacillaceae - Gingival 4 & 8 sampling period; Axilla 6th sampling period.

(b) pseudodiptheriticum

(c) C. enzymicum

(R) This pattern seems to be blochemically related to C. enzymicum although the action on nitrate is absent. Numbers represent sampling period

Subject 35 - EXPERIMENT IX TABLE 16 --- Continued

	Lacto-		Corynebacterium	cterium				Pattern	u	6	ř	
baci	lleae	striatum	(q) opnəsd	enz-(c)	xerosis	A	A^{1}	В	B¹	B ²	.B	B.
												-
												1
			8			1, 2, 3, 5						9
1, 5,	4, 5, 7, 10-12						5	11				
	1-3, 5,6,9-11					9						
1		4,8,12				3,12		***************************************	8,11			
										1		
		debriderse, speel from printeditives was to	- Walders dem ses est placetes (sesse) partie de distribuir en re			2,9						
		6,7,8,11 12			3	10,12			1,2,5,9 10			t-
		7	12		1,9	2,5,6				2	∞	
}		1,2,4,5, 6,7,8,10			3	i, 10, 12	4,5,6, 8	11	3,4			
7.5	2, 3, 4-8, 10-12 10, 12	10,12										
		4,7	5			2*,3,4			10	1		
ţ		Antonomorphism										

⁽b) pseudodiptheriticum
(c) C. enzymicum
Numbers represent sampling period
* Reacts biochemically like A in that it showed no action on carbohydrates and nitrates but showed proteolytic activity on litmus milk and Loeffler's blood serum although it failed to liquify gelatin at the end of seven days.

TABLE 16 --- Concluded

Subject 36 - EXPERIMENT IX

	B ¹ B ² B ³ B ⁴				6		ය					ဖ			
Pattern	Д				\$										12
	A. ¹				б					9,12			6,7		6,9
Actions and Committee desired to the second	А	2	2,9,12		П			2, 6, 10, 11	6		2,3,5,9, 10	9,11	წ		11
	xerosis				က				:		2,9	ಬ	10		
cterium	enz-(c)					3(R)					7(R)	7(R)			
Corynebacterium	(q) opnasd				2,3,4,5,8 9,10,11								12		
	striatum										1,8,10,11	4,5,6,8,9,10,12	1, 2, 3, 4, 5, 6, 7, 8, 9		6 9 10 11
	Lacto- bacilleae					10								8-12	
	Body Area	Scalp	Ear	Eye	Nose	Gingival	Throat	Axilla	Forearm	Umbilicus	Groin	Glans penis	Anal fold	Feces	T. O. O.

(b) pseudodiptheriticum

⁽c) C. enzymicum (R) This pattern seems to be biochemically related to C. enzymicum although the action on nitrate is absent. Numbers represent sampling period

TABLE 17. OCCURRENCE OF GRAM POSITIVE RODS
BY SAMPLING PERIOD

Subject 17 - EXPERIMENT V

					Corynebacter:tum	cter:tum			р	Dattern	
Sampling Period	Lactobacilleae Bacillaceae		striatum	S+(a)	(q)opnesď	(c)-zuə	xerosis	acnes	A	Ã	Sp.
7											
2			groin								
က	feces, mouth		groin toes		mouth		eye				
4											
5	mouth										
9											
7	nose, throat		groin								
æ	throat, feces										
6	feces, throat		groin, ear								
10	nose, throat mouth, feces										
11	feces		axilla								
12	nose, feces		axilla								
13	feces	anal fold	groin axilla								
14	nose, throat mouth		groin								
16											_
16	throat										

⁽a) Variety of C. striatum fermenting sucrose
(b) pseudodiptheriticum
(c) C. enzymicum

TABLE 17 --- Continued

Subject 18 - EXPERIMENT V

			T		T	T	П							$\neg \top$	
	Sp.												_		
+ 0	rattern B Sp.					İ									
ρ	¥														
	acnes														
	xerosis								eye					eye	
terium															
Corynebacterium	(q) opnesd		glans penis	glans penis	nose										
	$S_{+}(a)$														
	striatum							axilla umbilicus	nose		axilla umbilicus nose		umbilicus		
		anal fold		scalp				ear		anal fold	ear		anal fold	ear	
	Lactobacilleae Bacillaceae	,e,	th:	throat, feces	feces	throat					nose, throat feces	feces		feces	throat
	Sampling Period	~	2	ဇ	4	5	9	L	8	6	10	1.1	12	13	14

(a) Variety of C. striatum fermenting sucrose
(b) pseudodiptheriticum
(c) C. enzymicum

TABLE 17 --- Continued

Subject 19 - EXPERIMENT V

Sampling					Commens							1
Period	Lactobacilies described	Do 04110 000 =		Last .	A Menagerium	crettain				,		
	- Carrida	- Dacitiaceae	striatum	S+\.	bsendo(a)	enz-(c)	xerosis	acnes	` ~	Fathern B Sn	an S	
1	feces		to a						ł			T
23	throat		808		throat						····	
က	throat				throat							T
			toes		glans pents							T
					mouth							~
d.	throat				caroat							
					grans penis							7
0			anal fold		+h +h +h							
9					mir Oak							
4			חומי יחים		teces			ABr			-	7
		nose	nose		throat						ear	_
æ	feces		anal fold									
8	nose. feder											 -
Ī		8	anal fold	-,-,					1	1		<u> </u>
07	nose, throat feces	J	feces						groin			
11	feces		anol fold	1					groin			
12	nose	Ö	anal fold									~~~
13	nose, feces		1010	<u> </u>	throat, ear			- 3	umbil.			
14 n	пове		throat	+					groin			
15 t	throat			+								
16			+	+	+							
			:		Planty	-	-			 - 		_

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum

Subject 20 - EXPERIMENT V TABLE 17 --- Continued

					Corynebac	terium			<u>д</u>	atter	
Sampling Period	Lactobacilleae Bacillaceae	Bacillaceae	striatum	S+(a)	(a) sendo		xerosis	acnes	A	B Sp.	Sp.
H	feces										
2			toes		anal fold						
8	throat		toes		anal fold						
4	feces		glans penis		anal fold groin						
ro	nose, throat		glans penis								
9											
4	throat, feces				ear						
æ	throat, feces						вуе				
6	throat, feces										
10	nose, throat,	axilla									
11	feces										
12					anal fold						
13	nose	nose			anal fold						
14	throat, mouth				anal fold						
15											
16											
	J	J		F	L			**************************************			

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum

TABLE 17 --- Continued

Subject 21 - EXPERIMENT VI

(a) (b) (c)	striatum S+1. pseudo. enz xerosis acnes	umbil.	nose		throat nose axilla	groin		nose	throat		mose, grotu exfila	ваг	glans penís ear	Γ	1 fedes		feces nose axilla groin
	Str				oat	Action to the contract of the						S.			Jes	358	368
	Lactobacilleae Bacillaceae	feces		throat, feces, mouth	feces thr	ear, nose		The second secon	throat, feces	throat, feces	throat, feces mouth	ces,	feces, ear	faces, mouth fed			
70		1	2	ဇာ	4	Ş	9	7	8	6	10	11	12		`	14	14

(a) Variety of C. striatum fermenting sucrose
(b) pseudodiptheriticum
(c) C. enzymicum

TABLE 17 --- Continued

Subject 22 - EXPERIMENT VI

4	8p.								_		_	_					_
stte.	В 8р.																
2	A		throat														
	acnes	groin		throat glans penis		groin mouth	groin mouth	groin mouth		Гесев				groin			
	xerosis												glans penis		axilla		
terium	(a) - z wa																
	(g)opnesď		nose							groin			axilla			mouth	<u> </u>
	S+(a)	•															
	striatum														glans		
	3acillaceae		toes	toes	nose								throat		axilla		
	Lactobacillead Bacillaceae	feces	4-2	mouth, toe	feces	feces glana nanta	glans penis	glane pente	glane penie	feces, ear		feces	feces, throat tglans penis	ar, feces	nose, throat		
	Sampling Period I		2	ဇ	4	5	8	2	8	3	10	11	12	13	14 n	15	

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum

TABLE 17 --- Continued

Subject 23 - EXPERIMENT VI

			ī													
5	Sp.															
++	raitein B															
٩	A A	lidmu														
	acnes	feces		throat scalp g, p, toes	groin feces	nose,g.p. feces groin	throat feces	feces	mouth						mouth	
	xerosis	glans penis									groin glans penis					groin
terium	enz_(c)															
Corynebacterium	(g) opnesd		throat		anal fold								glans penis		axilla	
	S+(a)															
	striatum	umbilicus										mouth				
		umbil, groinumbilicus feces, anal,	mouth		mouth	ear		glans pents	feces	teces		throat	ear, throat		axilla	
	Lactobacillead Bacillaceae	feces, anal groin, umbil.	+-	Гесев	feces, mouth	throat	foces glans penis	Τ	feces		groin	groin, throat feces, g.p.	throat, g.p.	groin, feces	1eces	throat
	Sampling	1		က	4	ယ	9	4	8	6	10	11		13		15

(a) Variety of C. striatum fermenting sucorose (b) pseudodiptheriticum (c) C. enzymicum

TABLE 17 --- Continued

Subject 24 - EXPERIMENT VI

***************************************	5	Sp.						•••• ••• ••• ••• ••• ••• ••• ••• ••• •										
	atter	B. Sp.										***************************************	:			***************************************		
	<u> </u>	Ą		umbil.										***************************************		1		
		аспев	groin anal fold forearm	anal fold G. P.	groin, to eascalp	groin nose,axiih	ear, fœes	feces, GP	nose	axilla	feces			tnr, axii.	groin	axilla		groin
		xerosis										feces	AMBER FERIFIER X 48 - ANNER X - Backe				***************************************	
	torium	en z – (o)																
	Corynebac	(a) ^{-%uə} (q) ^{opnəsd}		-					feces			nose		gians penis				
		(a)+S											A RESE CORPUS POR					
		striatum																
			umbilicus feces	throat umbilicus forearm	anal fold		throat					Negativitation for the second	del appet people op sept () proprieta people afficiated to people a		groin	glans pents		
		Luctobacillead Bacillaceae	focos, anal	anal fold feces, throat forearm	throat	foces, mouth	throat, mouth throat	hit com an enterior. A summing some state	mouth	glans penis	feces	NO LOGIC LEPONNE L'ACTORISME DE L'ACTORISM	throut, fecos		throat	throat, groin G. P., mouth	s de senso l'ences potage son l'És son different de monages de productiones des	
		Sampling	1	8	3	*	9	9	7	8	()	10			13			16.

(a) Variety of C. striatum formenting sucrose (b) pseudodiptheriticum
(c) C. enzymicum

Subject 25 - EXPERIMENT VII TABLE 17 --- Continued

	Э,										7															
; ;	Fattern B Sp										+			_								_				_
J. of	rat A	al alp	groin anal	n In	oln	ujo		groin	oln	÷4	-	<u></u>	groin	r.	groin	24	groin	7.	groin	7.	otu	-	groin	ľ	groin	oln I
		anal	±20 ≡	E	K)	T.S	car.	S.	gr.	00	1	car	gr	OB	gr	บอ	8	en	g.r.	ชด	38	no	gr	ទ	gr	KI
	acnes		***************************************								-															
	xerosis		Wilderson Virgani Donoscomo Principaloson, Pierro								to be a second s															
cterium	on 2 – (c)																									
Corynebacterium	(g)opnosd	throat mouth	the flatters of the same for the same ten before and	throat	throat	throat mouth	mouth		throat	throat	montr	throat	mouth	mouth		throat	mouth	throat				throat	mouth	throat	mouth	throat
	(n)+8	toes	8003	toes																						
	striatum		0800	กอยด	ζ. p.	กรอน	nogo, g. p.		1080, g. p.	nose, g. p.		nose, g. p.	groin	JOSG, g. p.		1086, g. p.	groin	1080, g. p.		nose, g. p.		nose, g. p.		пово, g. р.		nose, g. p.
			forearm				nxilla			າ ແນດ																เกา
The same same same same same same same sam	Inctobacillead Bacillaceae	mouth	of the forest of the Lagrange subsequent of the confidence of the	thront, mouth		feces, mouth	mouth		throat, mouth		And the second second interest on the second second second second	throat, mouth		throat, mouth	foces											
	Sampling		53		Ţr		9			æ		G		10		ľ		12		E.L		¥-1		15		91

(a) Variety of C. striatum formenting sucrose (b) pseudodipthoritioum (c) C. enzymioum

TABLE 17 --- Continued

Subject 26 - EXPERIMENT VII

Xerosis aches						Corynebacterium	cterium			Dattern	,
throat to be an all mouth groin anal groin mouth groin mouth axilla groin mouth groin axilla groin mouth groin groin mouth groin axilla groin gr	Sampling Period	Lactobacilleae	Bacillaceae	striatum		pseudo(b)	(c) ^{-zua}	xerosis	aciles		Sp.
Throat, feces Record Rec	1	throat				mouth				евг	throat toes
throat, feces groin mouth ear groin mouth gp mouth ear groin mouth groin groin mouth groin mouth groin mouth groin mouth groin mouth groin mouth groin mouth groin mouth groin groin mouth groin axilla groin mouth groin mouth groin axilla groin mouth groin axilla groin mouth groin axilla groin mouth groin axilla groin mouth groin axilla groin mouth groin axilla groin mouth groin axilla groin mouth groin axilla groin axilla groin mouth groin axilla groin axilla groin axilla groin mouth groin axilla gr	2				groin	mouth				ear	throat
throat, feces groin mouth mouth ear throat groin mouth ear throat groin mouth ear groin groin groin mouth mouth ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear groin mouth ear ear ear ear ear <t< td=""><td></td><td></td><td></td><td></td><td>anal, gp</td><td></td><td></td><td></td><td></td><td>nose</td><td>toes</td></t<>					anal, gp					nose	toes
S. P. mouth ear	က	throat, feces			groin	mouth				ear	throat, toes
throat groin groin mouth groin mouth groin mouth throat mouth groin groin mouth groin mouth groin groin mouth groin mouth groin groin mouth groin g											forearm
Throat											scalp
throat g.p. mouth ear groin mouth ear g.p. g.p. axilla g.p. mouth ear g.p. mouth ear g.p. g.p. nouth nose g.p. groin mouth nose g.p. groin mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. groin groin axilla	4		axilla		groin	mouth				ear	nose
throat groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin groin mouth ear groin groin mouth ear groin groin mouth ear groin groin groin axilla groin groin axilla groin groin axilla					g.p.						throat
throat groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth nose groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin groin mouth groin mouth ear groin groin mouth groin mouth ear groin groin axilla groin groin axilla groin groin axilla groin axilla axilla groin axilla groin	2				groin	mouth				ear	
groin groin axilla groin mouth axilla groin mouth axilla groin mouth axilla groin mouth axilla groin mouth nose groin mouth ear groin mouth axilla groin mouth axilla groin mouth axilla groin groin mouth ear groin groin mouth ear groin groin mouth axilla groin groin mouth axilla groin groin axilla groin groin axilla	9	throat			groin	mouth				ear	nose
groin mouth axilla groin mouth ear groin mouth ear groin mouth ear groin mouth nose groin mouth ear groin mouth ear groin mouth axilla groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mose ear groin mose ear					ය. ය						
groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear					groin					ear	mose
groin mouth ear g.p. mouth ear g.p. mouth ear g.p. mouth ear g.p. groin mouth ear g.p. groin mouth ear g.p. groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear					ر ت ت					axilla	throat
g. p. mouth axilla g. p. mouth car g. p. mouth car g. p. mouth nose g. p. mouth car g. p. mouth car g. p. groin mouth axilla g. p. groin mouth car g. p. groin mouth car g. p. groin mouth car g. p. groin mouth car g. p. groin mouth car g. p. groin mouth car	8				groin	mouth				ear	mose
groin mouth ear groin mouth ear groin mouth nose groin mouth ear groin mouth ear groin mouth axilla groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin groin mouth ear groin groin mouth ear groin groin axilla	•				o o					axilla	throat
g. p. mouth car g. p. g. p. mouth nose g. p. groin mouth car g. p. groin mouth car g. p. groin mouth axilla groin mouth car groin mouth car groin mouth car groin groin axilla groin groin axilla	6				groin	mouth				ear	throat
g. p. mouth ear g. p. mouth nose g. p. groin mouth axilla g. p. groin mouth axilla g. p. groin mouth axilla g. p. groin mouth ear g. p. groin mouth ear g. p. groin mouth ear g. p. groin mouth ear g. p. groin mouth ear g. p. groin axilla					or Or					nose	
groin mouth nose g.p. groin mouth ear g.p. groin mouth axilla groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin mouth ear groin groin axilla	01				groin	mouth				ear	throat
g. p. groin mouth nose g. p. groin mouth axilla g. p. groin mouth axilla groin mouth axilla groin mouth ear groin mouth ear groin mouth axilla groin mouth axilla groin groin mouth axilla					o.					nose	
g. p. groin mouth ear g. p. groin mouth axilla groin mouth ear groin groin mouth ear groin mouth ear groin mouth ear groin groin mouth ear groin groin axilla	11				groin	mouth				nose	throat
g. p. groin mouth ear g. p. nose mouth axilla groin groin mouth ear groin mouth ear groin mouth ear groin mose ear groin groin axilla					g.p.						
g. p. nose mouth axilla groin mouth ear groin mouth ear groin mouth ear groin groin axilla groin groin axilla	12			g. p.	groin	mouth				ear	throat
groin mouth axilla axilla groin groin mouth groin mouth hose groin mouth axilla axilla	13			g.p.	nose					axilla	nose
groin mouth ear ear ear groin groin mouth mouth ear nose groin mouth axilla axilla					groin					2117	+008%
groin groin mouth hardla axilla groin groin mouth axilla	14			မှု ည	nose	mouth				axina	roar
groin mouth ear ear g.p. nose groin mouth axilla					groin					ear	
groin mouth ear groin axilla groin										nose	
g.p. nose groin	15				groin	mouth				ear	caroat
groin	16			g.p.	nose					axilla	
				•	groin						

(a) Variety of C. striatum fermenting sucrose; (b) pseudodiptheriticum; (c) C. enzymicum

TABLE 17 --- Continued

Subject 27 - EXPERIMENT VII

,	£	Sp.	mouth		scalp	mouth		mouth		month			mouth		mouth		mouth		mouth		rnouth							mouth		-
	Dattern	В																												
	Δ	Ą		ear.gr	ear	ear	groin	ear	groin	ear	axilla	groin	exilla	groin	ear	axilla	ear	axilla	ear	axilla	ear	axilla	ear		ear	ear		ear		
		acnes																												and sections with a section of the section of
		xerosis																												
	rerium	enz-(c)																												
	Corynepacterium	bsendo(b)	nose, thr	nose	nose	nose	throat	nose		nose	throat		nose		nose	throat	nose	throat	throat		nose		nose	chroat	nose	nose	throat	nose	throat	
		$S_{+}(a)$			g.p.	82	penis			glans		-			glans	3	glans	70	glans	penis		penis	glans	penis throat	g.p.	glans	penis		70	
		striatum	anal fold	anal fold	anal fold	axilla		axirla							groin		groin		groin		groin		axilla	groin	ax, groin	axilla		axilla	groin	
		_	umbilicus							ear															throat				-	
		Lactobacilleae Bacillaceae	throat, feces	throat, feces	thr, fec, mor.th	throat, feces	mouth	throat, feces	mouth	threat, feces	mouth		throat, feces	mouth	throat, feces	mouth	throat		throat, feces	mouth	throat, feces	mouth	throat, feces	mouth	throat, feces			mouth		
	1 17 1	Sampling Period 1	1	2		4		2		9			7		8		6		10		11		12		13	14		15		

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum

TABLE 17 --- Continued

Subject 23 - EXPERIMENT VII

	,									s.									ı,		r	200		ear
4	Sp.		<u> </u>		+	<u> </u>	$\frac{1}{1}$			ear			-				+		ear	-	ear	2		83
Dattern	Ü		13		-	~	-	ot -	et	12			-		rd	-			ęł.		64	1 ~		3,
	A	anal toes	axilla	anal	toes	axill 8	groin	axilla groin	axilla	axilla	groin	groin	axilla	groin	axilla groin	axilla	axilla	groin	axilla	groin	axilla	axilla	groin	axilla
	acnes																							
	xerosis			<u> </u>																				
cterium	(c) ^{zu}																			_				
Corynebacterium	(g)opnesd					mouth		mouth	mouth	mouth		mouth			mouth	mouth	mouth				unom	mouth		
- 1	S+(a)	throat			throat	throat	g. p.	throat	throat	throat	g.p.		throat	я. С	g. p.	at	8. D.		throat			E.P.		g. D.
	striatum																							
												feces			feces		throat							
	Lactobacilleae Bacillaceae	feces										throat	feces											
	Sampling Period	1	2		67	4		တ	9	7		8	6		10	11	12	1	13		14	15)	16

TABLE 17 --- Continued

Subject 29 - EXPERIMENT VIII

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum

(1) C. avidum, (2) C. pyogenes, (3) C. hoagii

TABLE 17 --- Continued

Subject 30 - EXPERIMENT VIII

					Corynebacterium	terium			ρ	0++6	
Sampling	Toctobootillead	Racillaceae	atum	S+(B)	(q)opnesd	(c) zue	xerosis	acnes	¥ W	E E	Sp.
1	focus			1	£						toes
4			toes	axilla							
				g.p.							2080
2	fecos		toes	axilla groin							
3			anal	groin	feces						feces 1
			8903	whome							
4				grom							
5	feceis			g.p.		nose					
9				axilla		noge					
,				groin							***************************************
				g, p.							noae
4	-			nose							
α				axilla							ncee
0 6			g.p.	groin					g.p.		
10			feces	axiila	nose						
11			feces								
12											
1.3	fecesi		feces								
14				g. p.		nose					
15				axilla	groin						Cal.
16	Processia and the second secon			groin g.p.					draps		
				0.4							

(a) Variety of C. striatum fermenting sucrose
(b) pseudodiptheriticum
(c) C. enzymicium
(1) C. avidum

TABLE 17 --- Continued

Subject 31 - EXPERIMENT VIII

							<u> </u>	٦	7		T	1		1		٦			٦	٦	٦	٦			Ī		
	Sp.					=			ا اا																		
	rattern B				axilla		axilla													axilla	axilla		axille				axiila
	4 4						nose																				nose
	acnes			:																							
	xerosis							7																			
terium							anal										umbilicus	g. p.								g.p. axtila	
Corynebacterium	(g)opnesd																										
	S+(a)	anal	groin	g.p.	ana	groin	umbil	anal		groin	g. p.		groin	g.p.	groin	g.p.	groin	or pe	nose		g.p.	g.p.		axilla	groin	grotn	grofn
	striatum		-						ear	axilla														throat	BXIIIB	axilla	axilla
	Bacillaceae									-																	
The programment of the control of th	Lictobacillese Bacillacese	throat			throat	mouth																	feces				
	Sampling Period	1			2		ရ		7	Ð		9	1 4		8		6			10	77	12	13			16	16

(n) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum; (c) C. enzymicum

TABLE 17 --- Continued

Subject 32 - EXPERIMENT VIII

					Corynebacterium	cterium			ρ	atter	-
Sampling	Lactobacilleae Bacillaceae	Bacillaceae	striatum	S+(a)	(q)opnesd	enz-(c)	xerosis	acnes	A.	B Sp.	Sp.
1	feces, throat	mouth		nose				groin scalp		anal	toe
2	Angeleg Structural State on security and security security security of the sec			nose		g.p. groin				groin	
						nose					
ဇ				grotn toe						anal	100
4				g.p.		groin					
C			******* *******************************	groin	nose	feces					Í
9	feces	7	g.p.	groin	feces						g.p.¢)
L	mouth				asou						
8					esou	.d.8					
6									scalp		
10											
11	Periodical designation of the control of the contro		axilla groin								
12											
13		groin	axilla		пове						g.p.
14	mouth		axilla	пове	nose						
15					nose						
16		mouth	axilla								
(a) Varie	(a) Variety of C. striatum fermenting suc	m fermenting	g sucrose		(1) C. avidum,	dum, (2)	(2) C. pyogenes, (3) C. hoagii	es, (3) C.	hoagii	umd 2	

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum (c) C. enzymicum

TABLE 17 --- Continued

Subject 33 - EXPERIMENT IX

					ulo						· ·	i nis	g
Dattorn	B	anal (1)			anal, groin	anal (3) axtilla	anal(3) anal (1)	g.p.(1)		groin		anal fold gluns penis	anal fold umbilicus
)+BQ	A	g.p., axilla	umbil, eye	g.p., gingival	anal(1), anal axilla, g. p. groin (1)	groin (1) gingival, g.p., anal	groin, nose g.p., toe axilla, anal	axilla, nose	toe	groin umbilicus	anal, g.p. groin	toe, nose, gians penis	scalp, g.p. groin, ear umbilicus toe
	acnos												
	xerosis	gingiva!	anal, groin	groin						forearm anal fold	glans penis		
2000	(o)-zuə		nose(R)					throat(R)					
i de adamento D	zue (q) opnesd	nose, throat	g.p., forearm		nose		nose	toe, g.p.	anal, nose			glans penis	nose, ear
	S+(a)												
	striatum	groin, anai	anal	groin, nose	- ana l		g.p.,groin	groin, throat	groin, anai	toe, g.p. groin	toe, nose groin	groin	scalp, anal g.p.,umbili
- Da 0 41	luceae					пове							
10401	bacillus	foces	feces	foces				feces	бесев			throat	бесев
221/22	Period	1	2	8	4	ស	9	7	80	6	10	11	12

(a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum, (c) C. enzymicum

⁽R) This pattern seems to be biochemically related to C. enzymicum although the action on nitrate is absent * Number in paronthesis indicates pattern (A¹, B¹, B², etc.). See Table 14 for pattern description.

Subject 34 - EXPERIMENT IX 'TABLE 17 --- Continued

				1								3) 3)	-27
Pattern*	Э	gr:oin (1)	groin (1)		groin (1)	gingival(f) groin (1)	g.p. (2) gingival (4)		axilla (2) groin(1), g.p. (1)	g.p. (1)	groin	g.p. (1), nose groin, toe(3)	groin, g. p. forearm (1) gingival
Pat	¥	axilla, groin	g.p.,nose umbilicus(1) scalp	exilla, nose throat, g. p. groin, anal	nose, anal	axilla, g.p.() axilla (1)	toe, anal glans penis	toe	g.p., toe anal fold	nose, ear anal (1)	axilla, nose groin	glans penis groin	axilla nose, ear
	acnes												
descriptions are a second speciments of the se	xerosis	glans pents		glans penis	toe								
rlum	enz-(c)								groinfk)				
Corynebacterium	(q) opnesd	nose		пове			пове	groin, nose	пове		glans penis		umbilicus glans penis
	S+(a)												
	striatum	anal fold	axilla groin, anal	anal fold	groin, anal axilla, g ,.	groin, g.p.	groin, anal	anal, nose glans penis	groin, anal	axilla, anal		axilla	anal, axilla forearm
Bacil-	laceae				gingival		xilla	destinations and the state of t	gingival				
Lacto-	-	th, gin, fed	throat feces	throat	throat, gln, fec	thr, feces gingival	throat gingival	throat,fec gingival	throat gingival	throat	thr, feces gingival	gingival foces	throat gingival feces
Sampling	Period	-	W	က	ぜ	ហ	8	2	σ	6	10	11	12

'FABLE 17 --- Continued

Sublect 35 - EXDERIMENT IV

⁽a) Variety of C. striatum fermenting sucrose (b) pseudodiptheriticum, (c) C. enzymicum (R) This pattern seems to be biochemically related to C. enzymicum although the action on nitrate is absent Number in parenthesis indicates pattern (A¹, B¹, B², etc.). See Table 14 for pattern description.

TABLE 11 TEST COntinued

Subject 35 - EXPERIMENT IX

Sampling	Lacto-	Bacil-			Corynebacterium	erlum	Martin Allen Allen Allen Allen Allen Allen Allen Allen Allen Allen Allen Allen Allen Allen Allen Allen Allen A		Patt	Pattern*
Period	bacilleac	laceae	striatum	S+(a)	(q) opnosd	enz-(c)	xerosis	acnes	А	8;
1	throat		anal fold				glans penis		nose, anal	toe(2), groin(1)
23	throat feces	***************************************	anal fold			To the state of th			toe**, nose umbil, g. p.	g.p.(2) groin (1)
က	throat feces						groin, anal		nose, toe axilla	anal (1)
4	gingival		toe, unal axilla			_			toe, anal(1)	anal fold (1)
ເດ	throat gingival feces		anal fold		toe	-			anal (1) gingival(1) g.p.,nose	groin (1)
છ	thr, feces		anal, groin						g.p., anal(1)	nose (4)
7	gingival feces		anal, g.p. toe, groin							groin (4)
&	feces		anal, groin groin		nose				anal (1)	axilla (1) g.p. (3)
6	throat						glans penis		umbil, throat	groin (1)
10	thr, feces gingival		feces, anal						anal, groin	toe (1) groin (1)
11	thr, feces gingival		groin							axilla (1) anal, Gangival
12	gingival feces		axilla, feces groin		glans penis				axilla, anal groin	

Number in parenthesis indicates pattern (A¹, B¹, B², etc.). See Table 14 for pattern description. Reacts blochemically like Pattern A in that it showed no action on carbohydrates and nitrates but showed protectivity on litmus milk and Loeffler's blood serum although it falled to liquify gelatin at the end of seven days.

'TABLE 17 --- Concluded Subject 36 - EXPERIMENT' IX

Pattern*	Ф					throat(4), (1)	glans penis(2)			nose(1)			901
1	Ą	nose	groin, ear axilla, scalp	groin		groin	axilla toe(1), anal(1)	anal fold (1)		groin, ear glans penis anal, toe(1) forearm umbilicus (1)	axilla, groin	g.p.,toe axilla	umbilicus(1) ear
	acnes												
	xerosis		groin	960H		glans pents				groin	anal fold		
ərlum	enz-(c)			gingi(R)				g. p. (R) groin (R)					
Corynebact	zue (q) opnesd		ยยอน	пове	nose	пове			пове	nose	esou	nose	anal fold
	S+(a)												
	etriatum	anal, groin	anal	anal	anal, g.p.	g.p., anal	toe, anal,g.p.	anal fold	groin, g.p. anal fold	toe, anal g.p.	toe, g.p. groin	groin, toe	toe, groin glans penis
	laceae												
Lacto-	bacilleae								feces	feces	gingival foces	gacej	fecos
Sampling	Period	ī	2	3	4	ស	8	2	σc.	6	10	11	12

* Number in parenthosis indicates pattern $(A^1, B^1, B^2, etc.)$. See Table 14 for pattern description. (R) This pattern seems to be biochemically related to C. enzymicum although the action on nitrate is absent

TABLE 18. INCIDENCE OF CORYNEBACTERIA AND STAPHYLOCOCCI IN SELECTED BODY AREAS

Subject 17

					97	Sampling Period	Period							
	1	23	8	4	s	9	4	ဆ	6	10	11	12	13	14
Coryn.	0		0	0	0	0	20		0	0	0	0	0	0
Ear Staph.	0		0	0	160	0	0		- 1	0	10	10	0	0
Coryn.	>3000	530	0	0	10	0			170	1.380	000	1500	120	100
Nose Staph.	20	С	0	0	720	380		***************************************	2050	1000	13	400	009	1.250
Coryn.	>5000	>3000	1400	10	> 5000	>3000	120		2500	0	2000	1100	2000	TNTC
Groin Staph.	> 5000	>6000 >3000	0	TNTC	4000	000	40	-	270	5180	1000	1.260	200	300
Coryn.	27000	0		0										
Staph.	100	10		0										
Coryn.	250	340	0	0	09	100	40		0	10	0	c	0	40
Staph.	40	0	0	0	0	410	0		09	260	180	220	110	140
Coryn,	2000	300		0										
Staph.	2000	210		100				_						

TABLE 18 --- Continued

Subject 18

						Sampling Period	Period							
	н	N	က	4	5	9	L	œ	6	10	11	12	13	14
Coryn.	>5120	200	200	0	0	0	0		3000	0	30	320	TNTC	140
rar Staph.	~500	>2000	40	330	0	780	110		350	40	0	140	1150	100
Coryn.	>5000	1000	30	0	650	0			1200	0	0	0	0.09	ပ
Nose Staph.	>2500	120	10	0	260	20			1500	1.000	530	0	009	1250
Coryn.	1000	1000	20	10	0	~1000	50		100	0	0	40	c	
Groin Staph.	160	200	20	30	0	2190	06		150	1020	1040	350	300	
Coryn.	>5000	0		0										
Staph.	340	0		10										
Coryn.	20	0	0	0	0	0	0		0	0	20	0	•	0
Staph.	160	0	30	0	20	20	09		20	09	10	20	0	0
Coryn.	~200	0		0										
Staph.	2000	10		0									A CONTRACT OF THE CONTRACT OF	

TABLE 18 --- Continued

Subject 19

						Sampling Period	Period							
	г	87	က	4	ည	9	L	8	6	10	11	12	13	14
Coryn,	50	00	0.0	00	0	10	0	0	30	ú	0	10	0	0
Ear Staph.	3600	2020	80	10	00	140	20	10	120	7.0	110	1200	3000	610
Coryn.	0	0	10	0	0	0	0	0	0	0	0	0	0	270
Nose Staph.	>5000	220	0	10	20	0	0	0	210	120	120	1020	0	0
Coryn.	>5210 >3130	>3130	300	10	0	>3006	300		1500	09	220	40	06	10
Groin Staph.	440	09	20	110	0	10	7.0		3000	1250	40	100	760	10
Coryn.	>5000	0	0											
Staph.	250	30	10											
Coryn.	>250	830	0	0	0	0	0		20	0	400	0	0	0
Axilla Staph.	200	30	100	0	1010	480	23000		710	120	280	230	200	250
Coryn.	>3000	0	•	0										
Toes Staph.	>2500	0	10	20										

TABLE 18 --- Continued

Subject 20

						Sampling Period	Period	scontain absorbituto del GELEPONO DEL CONTAIN DEL CONT						
	н	2	8	4	ū	9	7	80	6	10	11	12	13	14
Coryn.	400	>5000	>5000	110	700	50	0	0	0	0	0	0	0	0
Staph.	>5080	>5090	1500	7.0	210	06	0	350	870	1500	1260	100	1200	110
Coryn.	>1000	0	0	0	0	0	NS	0	0	*	0	0	0	0
rose Staph.	>2500	0	0	0	0	0	NS	40	10	*	0	30	20	20
Coryn.	1000	1000 >5000	008~	0	0	>2000	10	2000	200	0	ಎ	TNTC	20	300
Staph.	750	1000	0	10	0	>2800	10	200	250	140	400	50	3:0	40
Coryn.	>2500	0	NS	0		·	 				•			
Staph,	0	10	NS	60										
Coryn,	G	0	0	0	0	0	0	0	0	0	0	0	0	0
Staph.	0	O	0	480	950	>2000	2000	510	0	1600	420	1.200	290	1950
Coryn.	0	72000	NS S	0										
roes Staph.	>3000	>3000 >2300	NS	240										

** No count given NS = No Sample

TABLE 18 --- Continued

Subject 21

					(A)	Sampling Period	Period						7	
	Н	8	က	4	2	9	7	æ	6	10	11	12	13	14
Coryn.	0	0	0	0	>400*	1080	006	0	400	0	>3500*	>1500	0	140
Ear Staph.	>3090	>4010	260	290	>400	140	1860	1060	850	>6000	>3500	>2500	74700	>230
Coryn.	>1000	0	0	>2000	*	026	0806	TNTC	1600	~3000	0	0	TNTC	360
Nose Staph.	20	10	0	1150		>3000	3120	TNTC	2480	>4000	1470	000 %	000 ₹	>6230
Coryn,	>3000	0	850	0	TNTC	0	TNTC	TNTC	TNTC	TNTC	TNTC	TNTC	TNTC	TNTC
Groin Staph.	550	250	>2000	0	>4004<	230	>3000	TNTC	>2900	890	420	>4800	1590	>3760
Coryn.	09	0	0	0	*09<	0	300	>1000	.300 	~300	4.80	~200	*	>3000
G. P. Staph.	180	0	o 	9	09<	80	260	280	160	220	160	20	920	390
Coryn.	0	0	0	0	TNTC	0	TNTC	TNTC	>3000	TNTC	TNTC	TNTC	TNTC	TNTC
Axilla Staph.	0	0	>3000	630	TNTC	>3000	23000	>2000	1540	74000	846	790	1800	10
Coryn.	<	TNTC	TNTC	·										
Staph.	0	TNTC	TNTC											

* Total Count - Not broken down ** No Count Given

TABLE 18 --- Continued

Subject 22

					, y,	Sampling Period	Period							
	1	2	က	4	ည	9	2	8	6	10	11	12	13	4
Coryn.	0	>3000	0	0	0	0	0	0	700	0	0	0	0	30
Ear Staph.	0	0	0	10	0	0	130	*	100	30	0	20	0	30
Coryn.	>2000	190	0	0	006	0	0	< 5000*	~250	0	820	~200	*	220
Nose Staph.	>1510	260	>3000	0	2500	> 5000	>5000	< 5000	3780	>5000	610	1620	1960	TNTC
Corym.	600	0	150	0	TNTC	0	TNTC	400	>3000	0	>2800	TNTC	TNTC	TNTC
Groin Staph.	530	860	140	0	90	810	3160	240	1290	TNTC	1510	2000	>4000	TNTC
Coryn.	1000	0	0	0	<2680*	>1580	~200	<>1250*	370	*	<>3000*	TNTC	*	>500
G. P. Staph.	150	50	550	0	<2680	300	20	<>1250	06	160	<>3000	210	1720	>640
Coryn.	0	0	0	0	0	0	0	<1160*	0	0	0	>1000	TNTC	>1250
Axilla Staph.	910	110	370	0	c	>4000	720	<1160	190	300	4.0	470	>2500	>5380
Coryn.	700	0	TNTC											
Toes Staph.	1500	0	1200									1		
	***************************************	Ar gemilletterprisentermentermen												

* Total Count - Not Broken Down ** No Count Given

TABLE 18 --- Continued

Subject 23

Particular of the control of the con			Andreas de cause de casa la costa de casa de casa de casa de casa de casa de casa de casa de casa de casa de c		Š	Sampling Period	Period							
	н	2	8	4	150	9	4	æ	6	10	11	12	13	14
Coryn.	0	0	0	0	0	10	0	09	10	400	20	0	260	0
Ear Staph.	0	0	0	0	0	50	320	380	200	20	130	>1650	0	180
Coryn.	0	0	0	0	*078V	0	0	160	460	120	·	0	0	100
Nose Staph.	10	100	0	09	<320	530	870	610	760	150	0	20	130	310
Coryn.	>5000	2000	450	20	TNTC	450	>3000	TNTC	TNTC	>5000	TNTC	0005	7,4000	0
Groin Staph.	350	20	150	0	<55	780	550	TNTC	TNTC	>2000	470	1500	120	1750
Coryn.	300	0	650	0	<560*	0	300	009	200	250	T NTC	750	2250	1.10
G. P. Staph.	40	40	300	0	<560	650	530	460	150	280	3600	1750	410	750
Coryn.	0	0	0	0	0	0	0	0	ຄ	0	0	0	0	0
Axilla Staph.	30	50	0	0	2680	2500	>2000	7500	>2500	1400	0009<	3620	1020	71500,
Coryn.	750	<750*	SZ							-				
roes Staph.	180	<750	NS											

* Total Count - Not Broken Down NS = No Sample Taken, Electrodes on Feet

TABLE 18 --- Continued

Subject 24

					3	Sampling Period	Period							
	1	23	8	4	ထ	9	7	8	6	10	11	12	13	14
Coryn.	0	0	0	0	0	0	0	20	0	0	10	0	0	230
Ear Staph.	30	150	20	0	20	150	0	280	20	200	80	30	0	3.40
Coryn.	09	09	0	0	<540*	0	100	100	> 500	470	220	.500	300	200
Staph.	>1000	790	2430	110	<540	720	1390	390	930	1190	960	940	410	1820
Coryn.	350	2000	>5000	0	<450*	0	3000	TNTC	>1500	>3000	0	>2000	200	71,000
Groin Staph.	360	400	>1500	20	<450	800	740	1140	210	750	790	310	350	8750
Coryn,	750	1000	2000	0	20	0	300	2500	100	200	>1250	>1250	400	2800
Staph.	170	06	1750	0	0	350	170	>2500	260	200	840	410	300	1680
Coryn.	2500	1000	0	0	<160*	0	120	>2000*>2000	>5000	>2000	>2000*	>2000	>5000	TNTC
Staph.	2500	1500	190	800	<160	4500	>3000	>5000	>5000	23500	>2000	>1500	1250	>4.000
Coryn.	>2500	TNTC	S											
Staph.	1000	1000 TNTC	NS								-			
		Accompany (1)												

* Total Count - Not Broken Down NS = No Sample Taken

TABLE 18 --- Continued

Subject 25

AND DESCRIPTION OF THE PROPERTY OF THE PROPERT						Sarr	Sampling Period	eriod								
	П	22	က	4	တ	8	4	æ	6	10	11	12	13	14	15	16
Coryn.	1	1	1	1	ī	tntc	ı	>500	73	30	3600	080	1200	8000	1980	ı
Ear Staph.	10	420	06	20	3500	240	5000	007	800	2170	110	40	3800	580	1000	10004000
Coryn.		480	96	I	140	4000	2160	1200	1190	160	150	380	200	280	420	80
Nose Staph.	30	290	40	780	10	650	520	3800	310	40	100	110	100	20	360	30
Coryn.	0	280	Ü	300	0009	tntc	3440	i	20	3500	830	7700	22000	16400	19100 6000	0009
Groin Staph.	0	20	0	70	510	00009	2040	6130	2580	7200	750	5400	7400	3300	1300	1300 7500
Coryn.	0	09	0	130	0	160	240	200	240	300	1600	1000	040	4000	o o	110
G. P. Staph.	0	0	0	10	0	20	40	970	100	420	340	800	1400	150	30	40
Coryn.	0	0	0	0	0	0	0	0	0	10	10	0	0	0	-	0
Axilla Staph.	170	170	20	09	440	> 500	20	640	2700	570	110	30	10	100	0	30
oryn.	00084	tntc	tntc													
Toes Staph.	1430	2240	tntc													

TABLE 18 --- Continued

Subject 26

						San	Sampling Period	eriod								
	-	83	ဇ	4	3	8	7	ဆ	6	10	11	12	13	14	15	16
Coryn.	tntc	thtc	tntc	tntc	7500	tntc	20000	800	180	1640	0	tntc	tntc	1000	4800	0
gar Staph.	1070	1640	1470	06	540	1250	7 4620 4900	4900	200	1520	4400	260	3000	80	C10	> 14400
Coryn.	5	320	0	20	0	120	160	0.2	60	10	300	0	20	320	0	0
Staph.	30	1230	20	890	09	2440	820	710	1170	10	570	630	0	910	170	10
Coryn.	5	d >2500	4650	7600	2000	tnto	>10000 tnto	tnto	tntc	860	1070	210	3680	086	70	1600
Groin Staph.	8	3000	20	400	2000	2500	3640	4550	5000	810	460	210	3140	170	40	2840
Coryn.	8	30	0	420	0	09	510	200	250	140	410	40	1400	069	220	09
G. F. Staph.	0	140	09	0	01	07	130	06	190	80	210	220	500	130	120	20
Coryn.	8	0	0	0	0	0	30	30	0	0	0	0	2560	1270	0	3600
Staph.	10	10>4000	90	20	4480	2140	>10000 1170	1170	540	130	3100	180	5360	4200	7500	3240
Coryn.	5	d>10000	600													, , , , , , , , , , , , , , , , , , ,
Stuph.	>5000	>5000>10000	tntc													

TABLE 18 --- Continued

Subject 27

							Sam	Sampling Period	eriod								
		-1	82	က	4	ស	9	4	20	6	10	11	12	13	14	15	16
	Coryn.	0	2000	tmto	tnto	tinto	tnto	tntc	2000	0040	4000	2720	272010000	990	1930	2300	0
Har Har Mar Mar Mar Mar Mar Mar Mar Mar Mar M	Staph.	460	840	1190	tnto	3600	2500	tntc	2800	3410	>10080	069	4800	3280	6.0	200	280
0	Coryn.	1200	3000	1000	1000 > 1500	1720	tnto	>8000	630	0981	810	0966	5600	1340	600	500	Q
	Staph.	430	70	1170	>3180	460	5000	3000	280	360	180	70	470	360	80	240	0
0	Coryn.	0	800	0	150	tntc	tnto	4900	>3000	~2400	0009 €	20400 tnto	tntc	2760	5500	1240	2000
erore Solution	n Staph.	0	30	10	0	0 ~4000	3000	1420	160	200	۸ 8000	009	30	3160	230	150	1930
0	Coryn.	0	0	200	40	0	510	260	340	2600	0088	4580	1120	200	4360	6470	09
. <u>w</u>	Staph.	•	0	20	460	0	0	2600	60	100	>10000	40	10	8560	210	0	1750
O.	Coryn.	0	0	0	7.0	120	330	>8000	1280	490	2640	280	30	30 > 660	480	1850	330
Axilla	ia Staph.	20	1540	20	200	440	1160	530	160	260	30	09	40	7.0	10	230	10
O .	Coryn.	8000	10000	10000													
Ω S V	Staph,	1890	10000	tnto													***************************************

TABLE 18 --- Continued

Subject 28

						Sam	Sampling Period	eriod								
	٦	8	က	4	2	9	2	80	တ	10	11	12	13	14	15	16
Coryn.	0	0	0	0	0	0	310	0	0	0	0	0	10	10	0	20
Ear Staph.	0	80	0	20	50	0	90	560	20	0	20	06	10	06	0	0
Coryn.	0	0	0	30	0	0	08	0	0	0	20	0	0	70	0	150
Nose Staph.	20	170	190	929	1040	3260	330	830	1470	700	130	06	20	390	3520	0
Coryn.	0	0	0	380	thtc	0	2000	2500	> 3000	1980	1090	540	2100	350	210	4240
Groin Staph.	0	20	0	10	2880	1100	310	1050	1510	190	140	170	170	60	40	550
Coryn.	0	0	0	20	0	30	160	06	2500	30	1160	20	20	930	180	40
G. P. Saph.	0	0	0	0	0	0	0	110	440	0	06	80	10	910	260	40
Coryn.	د	n >2000	0	2 5000	tntc	tntc	>8000	0	0009 <	1780	620	1000	210	3240	009∼	tntc
Axilla Staph.	0	290	20	40	320	200	160	0.2	480	30	50	220	10	440	120	260
oryn.	13000	13000 > 8000	320													
roes Staph.	610	610 >8010	tntc													

TABLE 18 --- Continued

Subject 29

Coryn. 1 2 3 4 6 6 7 8 Coryn. 0 120 310 60 120 0 0 0 0 Coryn. 1500 200 70 70 110 780 70 440 Nose 38ph. 27 360 450 120 85 90 0 Groin 10 27 360 450 120 85 90 0 Groin 10 20 380 500 700 200 800 Groin 3taph. 2 0 0 800 35 120 1600 G.P. 3taph. 2 4 110 20 35 120 30 36 30 36 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30						Sam	Sampling Period	eriod								
0 120 310 60 120 0 0 1500 200 70 70 110 780 70 560 12 360 450 120 95 90 560 12 88 70 380 57 130 10 20 380 500 700 2000 2000 10 20 380 500 1100 1500 1500 2 0 4 110 20 35 120 250 5000 0 6000 5200 2000 900 3500 1 160 220 520 240 3500 1 160 220 520 240	н	83	တ	4	æ	8	7	80	6	10	11	12	13	14	1.5	16
1500 200 70 110 780 70 0 27 360 450 120 95 90 560 12 88 70 380 57 130 95 820 100 5000 8000 700 2000 10 20 380 500 1100 1500 1500 0 0 0 800 90 35 120 250 5000 4 110 20 35 120 75 30 1 160 5200 240 3500 1 160 220 240 3600 1 160 220 240 3600 1 1 1 1		120	310	90	120	0	0	0	0	20	0	0	0	0	0	0
0 27 360 450 120 95 90 560 12 88 70 380 57 130 95 820 100 5000 8000 700 2000 10 20 380 500 1100 100 1500 0 0 800 90 35 120 2 0 4 110 20 35 120 250 5000 5000 5200 2000 900 75 30 1 160 220 520 240 3500 3500 350 360 360 360 360 1900 3500 350 350 360 360 360 360		200	02	20	110	780	7.0	440	830	440	79	660	9	77	180	360
560 12 88 70 380 57 130 95 820 100 5000 8000 700 2000 10 20 380 500 1100 1500 1500 0 0 0 800 90 35 120 2 0 4 110 20 1 7 250 5000 0 5000 5200 2000 900 3500 1 160 220 520 240 1900 1 1 1 1 1		27	360	450	120	95	06	0	70	124	09	40	410	400	40	130
95 820 100 5000 8000 700 2000 10 20 380 500 1100 1500 0 0 0 800 90 35 120 2 0 4 110 20 1 7 250 5000 0 5000 5200 900 900 75 30 1 160 220 520 240 3500 1 160 220 520 240		12	88	20	380	57	130	37	77	58	340	190	530	780	91	30
10 20 380 500 1100 100 1500 0 0 800 90 35 120 2 0 4 110 20 1 7 250 5000 0 5000 5200 2000 900 75 30 1 160 220 520 240 3500 1 160 220 520 240		820	100	2000	8000	200	2000	8000	4000	tntc	8000	7300	12500	80000	29000	10000
0 0 800 90 35 120 2 0 4 110 20 1 7 250 5000 0 5000 5200 2000 900 75 30 1 160 220 520 240 3500 1 160 220 520 240		20	380	200	1100	100	1500	1800	1200	tntc	750	0009	52500	10100	6500	25000
2 0 4 110 20 1 7 250 5000 6000 6200 2000 900 75 30 1 160 220 520 240 3500 3500 3600 3600 3600 3600 3600		0	0	800	06	35	120	1600	0	2300	120	0	1800	200	0	300
250 5000 0 5000 5200 2000 900 75 30 1 160 220 520 240 3500 1900 2000 240 240		0	41	110	20	-1	2	1200	30	250	51	73	1500	41	7	300
Staph. 75 30 1 160 220 520 240 Coryn, 3500	 	2000	o	2000	5200	2000	900	2000	3500	5500	3000	150	2000	2000	41500	2000
Jorya,		30	1	160	220	520	240	920	280	340	350	980	490	140	730	1500
74035							_								20000	0006
	h. 1900								*SN						30000	13100

NS = No sampleData equivalent to 10⁻⁴ total bacteria per gram of sample

TABLE 18 --- Continued

Subject 30

						Sam	Sampling Period	eriod								
	H	87	က	4	သ	9	4	8	6	1.0	11	12	13	14	15	16
Coryn.	0	0	0	4	0	0	0	0	0	0	0	0	0	0	200	က
Ear Staph.	0	- 4	0	0	0	0	0	62	П	ပ	1	50	က	2	30	7
Coryn.	330	31	115	21	21	0	18	52	87	10	10	4	125	50	89	210
Nose Staph.	90	58	56	260	11	10	25	170	20	42	24	29	203	70	134	108
Coryn.	450	200	1500	1600	980	1800	0003	180	2000	2000	2000	350	3700	contam 4500	4500	28900
Groin Staph.	57	10	110	380	450	53	340	870	2000	1500	1350	800	1200	contam	40.0	17500
Coryn.	95	48	0	1800	2000	300	200	1690	1230	2000	700	100	850	2500	45.0	1900
G. P. Staph.	12	0	0	530	830	20	350	440	340	2400	120	360	2000	400	2.0	1900
Coryn.	2000	2000	0	770	1750	2300	65	130	0009	2750	2800	0	2800	3000	tntc	1000
Staph.	220	1620	5	1020	1250	1450	15	51	1060	130	1160	3500	2700	1400	180	700
Coryn.	5250	_							26200							2000
Toes Staph.	2000								4200							3900

Data equivalent to 10⁻⁴ total bacteria per gram of sample

TABLE 18 --- Continued

Subject 31

							Ø	amplin	Sampling Period	T							
		H	2	8	4	5	9	2	œ	6	10	11	12	13	14	15	16
Ç	Coryn.	5000	009	550	3000	2000	009	4500	5500	5500	800	200	0	0	0	30	0
ra a	Staph.	20	13	15	200	20	30	20	50	90	2940	70	73	380	1500	20	1340
	Coryn	0	0	91	26	0	0	0	0	12	11	0	0	20	0	0	20
	Staph.	10	140	4	32	20	ຜ	73	23	63	43	56	350	350	210	220	450
	Coryn	860	1980	1730	2250	1500	1750	4000	2000	0009	4000	1300	850	3000	2500	1,3000	32000
	n Staph.	40	30	140	260	490	200	096	3440	2000	4250	2500	1050	2850	1000	9000	4800
	Coryn	320	270	0	650	150	420	400	140	1800	2400	1000	0	2250	1400	1700	2000
 	Staph.	19	38	0	80	110	10	480	250	1950	4000	800	400	3500	300	550	3100
	Coryn	250	1020	11	100	200	40	2000	2560	1920	2120	1980	0	2410	08	0	2200
WITTEN TO	Staph.	380	2020	116	400	1320	800	4800	3000	1150	1410	2400	2000	2500	1700	4850	550
(Coryn 6000	6000								2200						70000	20000
T.OeB	Staph. 2500	2500								3200						70000	40000

Data equivalent to 10⁻⁴ total estimated bacteria per gram of sample

TABLE 18 --- Continued

Subject 32

							62	andlu	Sampling Period	ਦ							
		F	83	တ	4	20	8	4	æ	6	10	11	12	13	14	15	16
Ī	Coryn.	170	0	400	214	120	1200	15	30	0	69	0	0	7	0	0	0
83 13 13	Staph.	36	610	73	200	150	40	2	110	အ	65	15	53	110	670	110	2600
1	Coryn.	7	7	160	256	45	49	40	10	5	20	0	19	09	0	110	38
6 6 6 7 7	Staph.	28	12	410	460	110	104	130	110	95	100	78	18	135	8	58	250
	Coryn.	700	1880	205	3000	1500	2000	1300	3000	2800	4200	2000	2300	19000	400	006	3000
	Staph.	140	1200	<u>ග</u>	420	190	1120	290	200	460	2000	580	1200	2000	800	430	900
1	Coryn.	205	006	0	300	174	1400	250	140	130	200	1150	009	2,50	200	190	310
	Staph.	40	01.	0	320	22	340	80	35	210	250	250	1600	350	520	380	50
3	Coryn.	0	0	0	40	006	800	1200	2000	1110	2750	3000	2000	3800	1900	tntc	4500
S	Staph.	48	1410	ധ	180	3620	5600	1600	860	550	2000	400	4800	2040	1400	4500	740
1	Coryn.	165						12000									32500
Toes	Staph.	83						0									4300
	*************************************	4	•														

Data equivalent to 10⁻⁴ total estimated bacteria per gram of sample

TABLE 18 --- Continued

Subject 33

					Sampl	Sampling Period	Ď					
	1	8	ဇ	4	5	Ф	7	8	6	10	11	12
Coryn.	200	145	65	83	142	62	0	81	0	0	400	1100
Nose Staph.	24	22	35	47	161	38	21	238	23	43	2400	2200
Coryn.	0	0	0	240	5500	3980	400	0	0	0	0	0
Staph.	21	8000	1320	1310	4180	570	006	> 5000	7920	870	4700	₹3000
Coryn.	2000	3000	3000	24000	0002	3500	4000	0009 <	00009	11000	90009	1.300
Groin Staph.	300	3550	400	800	3300	1010	3200	4000	9300	3000	2900	250
Coryn.	0	117	1	30	12	32	0	200	1140	170	009 <	600
G. F. Staph.	н	27	0	9	0	63	28	180	670	148	150	250
Coryn.	1150	4750	006	11700	1000	1.0500	100	1280	5150	1850	0009ح	> 2540
Anau Staph.	20	880	0	16300	4000	1000	3600	500	006	200	200	200
Coryn.	3500	0009 <	*	2800	*	2300	0029	21000	0004	25000	80000	30000
Toes Staph.	2000	>8000	*	2200	*	1100	2100	18600	15500	22400	50000	7250000

Data equivalent to 10⁻⁴ total bacteria per gram of sample.

TABLE 18 --- Continued

Subject 34

					Sampl	Sampling Period	þç					
******	1	63	8	4	ı,	8	7	8	6	10	11	12
Coryn.	0	ဗ	23	46	0	13	6	38	112	20	255	120
Staph.	4	8	6	70	-4	20	35	77	7:9	320	285	180
Coryn.	200	145	130	>8000	4000	161	580	1650	0009 <	tntc	650	2756
Staph	22	4	10	069	09	13	64	0899	180	490	130	1380
Coryn.	1000	2000	2010	4500	13200	1420	1250	3450	10	7900	12100	11300
Staph.	110	1280	150	1820	10100	650	3500	3500	3000	3800	3400	4000
Coryn.	>200	35	195	225	154	330	181	3820	0	405	2530	2180
Staph.	н	17	02	38	36	190	234	2600	3600	009	2000	650
Coryn.	200	440	270	3300	830	530	80	1750	2850	76150	2810	> 2000
Staph.	0	140	200	500	100	70	340	3860	470	26000	1130	> 2500
Coryn.	1800	2500	*	3500	*	0	2500	14200	200	0	0	4500
roes Staph.	1000	1800	*	1560	*	100	900	7200	2300	2600	1700	8000
Protestino destate de la companya del companya de la companya del companya de la	True months and a second		Redespendent to the state of the continue of the continue of the state									

Data equivalent to 10⁻⁴ total bacteria per gram of sample * No sample taken, sweat test instead

'TABLE 18 --- Continued

Subject 35

					Sampl	Sampling Period	P					
	1	23	က	4	5	છ	7	8	6	10	11	12
Coryn.	0	0	22	16	16	0	0	19	0	0	0	0
Nose Staph.	230	32	163	148	.67	1110	300	79	82	580	124	4200
Coryn.	850	2100	1050	2400	4800	2000	2850	0009 <	contam	870	0009 <	0009
Axilla Staph.	190	2010	230	06	340	140	110	400	contam	06	460	200
Coryn.	110	1000	2100	8500	430	790	4400	> 6050	12000	10000	1300	7000
Groin Staph.	50	1900	370	3100	110	140	2250	> 5000	10500	12000	3700	4800
Coryn.	20	700	360	200	1070	0	100	280	0	330	10	250
Staph.	24	550	ភូច	96	210	140	390	069	1850	270	430	400
Coryn.	350	tntc	5400	18800	3300	400	13000	0096	0	200	4500	15000
Anal Staph.	0	0	2300	9800	3000	800	5800	2900	> 5000	32000	2200	3100
Coryn.	0	>8000	13000	28000	0	85000	0	51000	40000	95000	145000	>30000
Toes Staph.	5700	>8000	25700	17500	55000	33000	40000	40000	30000	28000	30000	>25000

Data equivalent to 10-4 total bacteria per gram of sample

TABLE 18 --- Concluded

Subject 36

					Sampl	Sampling Period	Þí					
		87	တ	4	5	9	4	8	8	10	11	12
Coryn.	210	343	550	260	8000	450	930	400	2000	2320	1330	096
Nose Staph.	20	51	370	150	089	4	320	277	390	350	710	830
Coryn.	0	0	180	×	3450	0	0	0	0	0	150	> 2500
Axilla Staph.	0	670	1270	×	1030	58	130	3260	123	250	25	140
Coryn.	700	750	1760	>4000	0	1160	0	2000	0009	3400	2500	3000
Groin Staph.	1420	1300	4000	¥4000	4100	780	2750	0089	11800	1400	1000	0009
Coryn.	×	×	×	40	3020	11	> 500	3008	> 800	165	009 <	tntc
G. P. Staph.	×	×	×	X 60 + spreader	4400 + X	13	30	700	38	17	23	270
Coryn.	1200	260	1600	6400	190	0809	970	tntc	0	086	11000	12500
Ana. Staph.	1250	430	1000	6500	260	009	1260	6000	1400	90	7500	6000
Coryn.	×	×	×	×	x	2000	10000	×	10000	126000	0006	46000
Toes Staph.	×	×	×	×	×	62000 + spreader	12000	×	61000	120000	39000	35000

Data equivalent to 10^{-4} total bacteria per gram of sample X = plates covered with Proteus sp.

TABLE 19, OCCURRENCE OF OTHER AEROBES Subject 17 - EXPERIMENT V

Scalp Ear Nose	1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				\$				1000
		Galini	pharnye	itis catarrhalis	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	perflava relava	K	*.008	Mora Xella Mico	
				•		1	 	1		TATYBO
										micro-
										cocci -6
	2									
Mouth 3										
Throat 9					 - -			 		
Axilla	12									
Forearm										
Umbilious								4		
Groin								- 7	9	
Glans penís									0	
Anal fold	8							+-	-	
Feces										
							-			

*Identification was not carried to species Numbers represent culturing period

TABLE 19 --- Continued Subject 18 - EXPERIMENT V

						Neisseria	eria				Maria
Body Area	Haemophilus	18	Gaffikya	pharny gitte	E E	/8	lava	Tava	spp.*	Moraxella Misc.	Misc.
Ear										86	
Eye										3	
Nose		5, 6							8		
Mouth						-			2		
Throat	6								14		
Axilla		10					-			7	
Forearm											
Umbilious											
Groin											
Glans penis					_				4		
Anal fold											
Foces											
Toes											

*Identification was not carried to species Numbers represent culturing period

TABLE 19 --- Continued Subject 19 - EXPERIMENT V

*Identification was not carried to species Numbers represent culturing period

TABLE 19 --- Confinued Subject 20 - EXPERIMENT V

						Neisseria	eria				MITTIN
Body Area	Haemophilus Haemophilus	18	Gaffkya	pharny gitta	Barri	/8	lava.	Tava	spp.	Moraxella Misc.	Misc.
1								-	3		
Ear		14									
Eye											
Nose	9								10		
Mouth											
Throat	6								10		
Axilla									12		
Forearm											
Umbilicus											
Groin											
Glans penis											
Anal fold											
Feves											
Toes											

* Identification was not carried to species Numbers represent culturing period

TABLE 19 --- Continued

Subject 21 - EXPERIMENT VI

		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				Neisseria	eria				Bully
Body Area	Haemophilms	eui	Gaffkya	pharnye	rrha	\s ₂	perflava	flava	*•dds	Moraxel Misc.	Misc.
i											
Ear										4	
Eye										1	
Nose	5, 7									11	
Mouth										4, 14	
Throat					4, 11					11	
Axilla				8							
Forearm											
Umbilleus											
Groin				83					6		
Glans pents				11	6						
Anal fold											
Feces										5	
Toes											
*Identification was not carried to speci	on was no	ot carried	to specie	es							

*Identification was not carried to specie Numbers represent culturing period.

TABLE 19 --- Continued

Subject 22 - EXPERIMENT VI

	\					Neisseria	eria				BILLEY
Body Area	Haemophilus Haemophilus	18	Gaffkya	pharny gittis	Burra	\g;	perflava	Tlava	*.qq	Moraxella Misc.	Misc.
Scalp											
Ear					13						
Eye											
Nose											
Mouth	11									4	
Throat	12				13						
Axilla											
Forearm											
Umbilicus											
Groin										6	
Glans penis	5									6, 12	
Anal fold											
Feces					5						
Toes											
TOOKE OF TO THE OWNER OF THE TOOK OF THE T	000000000000000000000000000000000000000	4 20 0000	4- 000010								

*Identification was not carried to species Numbers represent culturing period.

TABLE 19 --- Continued Subject 23 - EXPERIMENT VI

		\ \	١			Neisseria	seria				Burn
Body Area	Haemopur	自	Gaffikya	phe.rnygitis	Sar I	/ଖ	perflava	Thava	spp.*	Misc.	Misc.
Scalp									i		
Ear											
Eye											
Nose											
Mouth											
Throat	15									2, 14	
Axilla											
Forearm											
Umbilicus											
Groin	12						-				
Glans penis											
Anal fold											
Feces											
Toes											

*Identification was not carried to species Numbers represent culturing period.

TABLE 19--- Continued Subject 24 - EXPERIMENT VI

						Neisseria	erta				Wilms:
Body Area	Haemophilus	18	Gaffkya	pharnygitia pharnygitia	lad TT	(g)	perflava	Flava	spp.*	Moraxella Moraxella	Misc.
1											
Ear					13						
Eye										7	
Nose	4									သ	
Mouth											
Throat	14										
Axilla	σο										
Forearm											
Umbilicus											
Groin											
Glans pents											
Anal fold											
Feces	3, 5, 7, 13								9		
Toes											
57 - 1317 - 134	7	4 00 had	aroana c+	0							

*Identification was not carried to species Numbers represent culturing period.

TABLE 19 --- Continued Subject 25 - EXPERIMENT VII

	1	1				Neisseria	eria				Mimia
Body Area	Haemopu	ğ	Gaiffkya	pharny gittle	Str.	/ଞ	perflava	Flava	spp.*	Moraxella Misc.	Mis.c.
Scalp									•		
Ear											
Eye											
Мове	15							7,8,9,			
Mouth	1,4,5,					11, 13, 14		1, 3, 4, 5			
Throat	1, 14, 15, 16					2, 3, 4, 5,		1,7,8,9	13, 14		
Axilla						٥		10, 12, 15			
Forearm											
Umbilicus											
Groin											
Glans pents											
Anal fold											
Feces											
Toes											
K T. J 11.5.			Ţ		7		-	-			

*Identification was not carried to species. Numbers represent culturing period.

TABLE 19 --- Continued Subject 26 - EXPERIMENT VII

						Neisseria	erla				SILLS
Body Area	Haemophilus	दि	Gaffkya	pharnye	la Tr	/g	perflava	Flava	**dds	Moraxella Misc.	Misc.
1											
Ear											
Еув											
Nose						4,8,9		6,8,9			
Mouth	4,14					6,8,13, 16		3, 4, 9, 12, 15	4, 10, 14		
Throat	1, 3, 4, 10					2, 3, 5, 6, 8, 11		2, 4, 7, 9, 10, 12, 14	2,4,7,9,4,15,16 10,12,14		Gaffikya 4:
Axilla											
Forearm											
Umbilicus											
Groin								14			
Glans penis											
Anal fold											
Feces											
Toes											
* Topntification	אטמ שמעו שנ	pammad	to anantag	1							

*Identification was not carried to species Numbers represent culturing period.

TABLE 19 --- Continued
Subject 27 - EXPERIMENT VII

	\	Bull	١			Neisseria	erta				Builde
Body Area	Haemophi	BU	Gaffkya	pharny gittle rrhalls	catarrha	800	perflava	Tlava	spp.*	MOTORANDA	
Scalp											
Ear											
ਜ਼ye											
Nose	8							æ			
Mouth	1,3	1, 3, 5, 7, 8,9,13, 16				6,9,10,11					
Throat	4, 5, 6, 14, 15					4, 5, 6, 8		9, 10,11,	13, 14		
Axilla											
Forearm											
Umbilicus											
Groin											
Glans penis											
Anal fold								8			
Feces											
Tres											
*Identification was not comment to charter	n was not	+ homeo	so Joods O				7		,		7

*Identification was not carried to species. Numbers represent culturing period.

TABLE 19 --- Continued Subject 28 - EXPERIMENT VII

						Netsseria	rta.				STEEL
Body Area	Haemophilus	18	Gathya	pharnygitis Cate	ed 3.3.	85	lava	Tava	8pp. *	Moraxella Misc.	Misc.
1		Ì									
Ear											
Eye											
Nose		\									
Mouth	3,4,5,9, 10, 12					10,13, 14,15		3, 4, 6, 8	5, 9, 11, 12		
Throat	2, 12, 14, 15				3	5, 8, 10, 14		2, 3, 6, 9, 11, 15, 16			
Axilla											
Forearm											
Umbilicus											
Groin									_		
Glans pents											
Anal fold											
Feces											
Toes											
colocas of to brace to to see well-cast and the	***************************************	100 min 00	40 0000	0							

*Identification was not carried to species. Numbers represent culturing period.

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TABLE 19 --- Continued Subject 29 - EXPERIMENT VIII

		8111				Neisseria	eria				SITING.
Body Area	Haemophilistina	Sarcina	Gaffkya	pharnye	rrha	Ca)	perflava	Tava	*'ďďs	Moraxella Misic**	M18ic.*
Scalp									1		
Ear											
Eye											
Nose											
Mouth					7	10					
Throat						7, 11, 14	10		1		15
Axilla											
Forearm											
Umbilicus											
Groin											
Glans pents							5, 9, 14				
Anal fold											
Гесея								13			
Тоев											
			P. distribution of the second	######################################	**************************************	THE STATE STATES	####		************************************		

* Identification was not carried to species ** Glucose, Sucrose, Mannitol -; Maltose +

Subject 30 - EXPERIMENT VIII TABLE 19 --- Continued

1ava 15 10, 13 16 11 11 11 11 11 11 11 11 11 11 11 11							Neisseria	eria				Same.
at arm	1	Haemoph	18	GREEKYR	pharnygh	catarrhal	850	perflava	Tava	{	Morare M.	Misc,**
h 7 6,13,14 12 10,13,16 at at at at a at at a at at a at a at	Scalp											
h 7 6, 13, 14 12 10, 13, 18 at an	Ear											
h 7 6,13,14 12 10,13,18 at a	Eye											
at at a bands at a bands at a bands at at a bands at at a bands at at a bands at at a bands at a ba	Nose											
at a a a arm Hous 1	Mouth	2					5, 13, 14		12	10, 13, 18		**9.15
arm litous 1 7, 9, 12, 15 16old 18 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10	Throat						3,7,11, 13,14	3,4,13	15	H		J~ =
arm licus 1 7, 9, 12, 15 3 pents fold 6	Axilla											
licus 1	Forearm											
1 7,9,12, 15 15 16 17,9,11, 16 18 18 18 18 18 18 18 18 18 18 18 18 18	Umbilious											
s pents fold s	Groin		7, 9, 12,				11					
fold	Glans pents		7, 9, 11,									
Feces	Anal fold											
Toes	Feces											
	Toes											

* Glucose, Sucrose, Mannito! - ; Maltose + ** Large gram positive coccus resembling Sarcina microscopically but with a very shiry gray string, colonial morphology

Subject 31 - EXPERIMENT VIII TABLE 19 --- Continued

MIMA	Misc. **			a new west training to the contract of the con		7*,* 1-3,79*	4, 15**				Personal Supremental Supremental descriptions of the second supremental suprem		#		
Amim allo	Worns					7	à						Ħ		
	spp.						2,6-8,10,								
	Thava						15								
Noisseria	perflava					13									
1 1	Talcoa				11,14	10									
1110	pharnyguri catarrhalla					10		13							
1															
	Catheya														
Sulla Bulla	Saroina														
	Haemor Sar					9									
	Body Area	Scalp	Ear	Eyo	Nose	Mouth	Throat	AxIIIa	Forearm	Umbilleus	Groin	Glans ponts	Anal fold	Focos	Тоев

* Olucose, Sucrose, Mannitol -; Maltose + ** Large gram positive coccus resembling Sarcina microsupleally but with a very shiny gray stringy colonial morphology

TABLE 19 --- Continued
Subject 32 - EXPERIMENT VIII

						Neisseria	eria	. Processor and the second second second second second second second second second second second second second	secretarismos forestorarios established		Cimin.
Body Area	Haemophilus	/gg	Gaffkya	pharny git is	rrha	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	perflava	Flava	•ďďs	Moraxella Misc.	Misc.
ì			1								
Ear											
Eye											
Nose											
Mouth						10,13			3,6-9, 16		*4.
Throat						9, 13-15		12, 15	7,8, 11,16		
Axilla			5-10,12								
Forearm											
Umbilious											
Groin			1-10, 12		,						
Glans penis			1, 2, 4-8, 10, 12								
Anal fold											
Feces											
Toes											

* Glucose, Sucrose, Mannitol -; Maltose +

TABLE 19 --- Continued
Subject 33 - EXPERUMENT (X

lava flava spp. Morazello						Nei	Neisseria				Mirna
al t t t t benis r t t t t t t t t t t t t t t t t t t		Haemophilus Sar	18	3affkya.	pharnygit	rrhalis oisi	perflava	i \i		Morakell	Misc.
at											Parket and the second s
12 12 2 2 2 2 2 2 2	Ear										
ral 12 10,1112 11 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Eye										
val 12 2 it 9,11,12 10,1112 2 it 6 6 6	Nose										*Baciilus 5
tt 9,11,12 10,1412 11 2 trm 10,1412 11 2 trm 10,1412 11 2 trm 10,1412 11 11 flcus 10,1412 11 11 flcus 10,1412 11 11 flcus 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11 fold 10,1412 11 11	Gingival			12							Sarcina 9, 11
Irm	Throat			9, 11, 12					2		
Forearm Forearm Umbilicus Groin Groin Glans penis Anal fold Feces Toes Toes	Axilla										Sarcina 9
Umbilicus Groin Company Groin Glans penis 6 Anal fold 6 6 Feces 7 6 Toes 7 6	Forearm								-		
Groin Glans penis Clans penis <th< td=""><td>Umbilicus</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Umbilicus										
Glans penis Anal fold	Groin										
Anal foldFecesFacesToes	Glans penis										
Feces	Anal fold										
Toes	Feces										
	Toes										

* Bacillus pos. B. subtilis

TABLE 19 --- Continued Subject 34 - EXPERIMENT IX

Mirio	Moraxella Misc.			entral de la companya		Sarcina 5	*Bacillus 8,12 Sarcina 5								Sarcina 11
	spp.					3,9	1								
	a flava														
Neisseria	perflava														
	1 (%						- 82								
	gitis rhalis														
	a pharnygitis					· · · · · · · · · · · · · · · · · · ·									
	A Caffkya					**************************************	9, 11								
\mathbb{N}	Haemophilus Haemophilus	5													
-												l's			
	Body Area	Scal	Ear	Eye	Nose	Ginorival	Throat	Axilla	Forearm	Umbilicus	Groin	Glans penis	Anal fold	Feces	Toes

* Bacillus = pos. B. subtilis

TABLE 19 --- Continued Subject 35 - EXPERIMENT IX

						Neisseria	eria				Smil.
Body Area	Haemophilus	leg !	Gaffikya	pharnygitia cate	gari	/8	perflava	Flava	spp.	Moraxella Misc.	Misc.
I											
Ear											
Eye											
Nose											
Gingival			7, 12						62		
Throat			8, 12		9, 10	12			9		Sarcina 4
Axilla											
Forearm											
Umbilicus											
Groin											
Glans penis											
Anal fold											
Feces											
Toes											

TABLE 19 --- Concluded Subject 36 - EXPERIMENT IX

Sally.	Misc.												Sarcina 6		
	Morawella Misc.														
	•dďs					1	1, 3, 4, 6								
	flava														
eria	perflava														
Neisserfa	/ଞ														
	Editi						7, 10, 12								
	pharny gitis														
	Gaffkya					12	4,7,12								
\	हिंद														
	Haemophilus														
	Body Area	Scalp	Ear	Eye	Nose	Gingival	Throat	Axilla	Forearm	Umbilicus	Groin	Glans penis	Anal fold	Feces	Toos
	Bo	Sc	ធ្ល	မြ	ž	Ö	F	₹	FC	'n	5	ថ	Ā	Fe	E

TABLE 20. CHROMOGENIC COLONY RECOVERY FROM ACTINO PLATES

Actinomycetales

EXPERIMENT VI

	8			Throat	Throat Glans penis
	2	Feces	Feces		Feces
	9	Mouth Glans penis	Mouth Glans penis	Axilla	Axilla
Sampling Period	5	Nosc Feces Ear	Mouth Axilla	Nose Glans penis	Mouth Groin Glans penis Ear
Sampling	4	Nose Feces Throat	Feces Ear	Mouth Axilla Groin Glans penis Feces Ear	
	3	Glans penis Throat			
	2	Groin	Throat Groin Nose	Throat	
	1	Feces			Glans penís
Subject	Number	21	22	23	24

TABLE 20 --- Continued EXPERIMENT VI (cont'd)

	16	Axilla Noise Ea:r	Throat Mouth Groin Glans penis	Groin Nosie Ear	Throat Mouth Axilla Groin Nose Glans penis
	15	Mouth		Axilla	Mouth
	14	Glans penis Ear	Nose Glans penis Ear	Mouth Glans penis Ear	Throat Mouth Axilla Feces
Sampling Period	13	Axilla	Axilla Groin Ear		Mouth
Samp	12	Nose		Axilla	
	11	Glans penis Throat	Throat Groin Nose Glans penis Ear	Groin	
	01	Groin Nose Throat Ear	Groin	Mouth	Mouth
	6		Ear		
Subtect	Number	21	22	23	24

TABLE 20 --- Continued

EXPERIMENT VII

					Γ	
	16					
	15					
	14	Throat	Groin*	Ear Throat*	Axilla	
;	13					
	12				Ear	
	11			Throat **		Floor Penl, Hyg. Area*
Sampling Period	10				Axilla* Throat*	
Sampli	6				Axilla*	
	ထ					
	2					
	9				Throat* Mouth**	
	ထ					
	4					
	3					
	64					
Subtent	Number	26	26	27	28	Room Area

* = Prosotnomyces. Species unidentified ** = Myooocous luteus.

TABLE 20 --- Continued

EXPERIMENT VIII

_	1					
	16					
	14 15 16					
	14					
	13			Groin Glans penis	es de ceres des constantes de la constante de	
	12		Ear* Groin	Groin		
	10 11		Ear*			Aft Table
q	10	Groin*				
Sampling Period	6		Mouth			
nplin	σο					
San	7					
	9			Glans penis		
	ស				Throat	
	ぜ					
	က				Throat	
	ରଃ					
	н					
Subfect	Number	29	30	31	32	Room Area

* Actinomyces flavus also found

TABLE 20 --- Concluded

EX PERIMENT IX

	71					
	11					
	10			Gingival		
	တ					
	85	Glans pents				
Period	2					
Sampling Period	9					Fore Table*
	9					Fore Table
	7					
	ၓ					
	27		Groin			
	1	Eye		Ear	Toe	Floor Panl. Hyg. *
Subject	Number	33	34	35	36	Room

* Actinomyces flavus also found

TABLE 21. OCCURRENCE OF FUNGI

Y THE STATE OF	4.4)4]8	Candida parapatinata	3	Abedel srula	Trishuperin	Pentetilium	Alternaria	Triebaphytan	Aspergillus ap,	, , , , , , , , , , , , , , , , , , ,	Messilanema
7	With I MARION I WAS BY AN IN SECTION ASSESSMENT OF THE SECTION ASSESSM				dend brattanensstrum padangan as						***************************************
Ť				1 0000	eddord and the collections have not start start as easy seed in	***************************************	***************************************	-SEEM LA			
		Class penis & Greta: B	-	7 1000 L	M stabbate in income the consense stableste feet as particular	***************************************	-				
	F	Oreita 15	***************************************	Thran:			-	***************************************			***************************************
	WM1. 1,1	201: 1,4-7,11			THE PERSON NAMED TO SERVICE AND THE PARTY OF PERSONS ASSESSED.	K440 6.11-11	Oratio A	***************************************	**************************************		
· ·	Keah: 6, 0-13, 11, 10	to distribute designation for the second of	and descriptions or hold pass	O leagest at the second of the second	### 1.0.				***************************************	Olare praise F	None: # Cladesportum
- ∳-	TTF-461 2, 2, 7, 4, 9	***************************************	H determination of the teachers		***************************************	Them! it	• 41010			Oren 10	**************************************
	Tarres: 11,15,10				Oreta: 7-16 Oldan penie: 0-10, 18-16 Anal fold 3, 0					Antila 10 Oretri P*	4.00000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Madh 4, 14 Thread: 4, 15				Mrs. 4	K00+ 1	-	* 1011 10000000000000000000000000000000	Pro-processive ser that process as the constant of the constan	A P.M. 40	
i			and material examination of the state		Three s	Months presents bearings	Y-100-11-10-11-10-11-10-11-11-11-11-11-11				
+				***	***************************************	Thickle 6, 10			Mode. 5		Anilla: 7 Nelminthosperium op.
1					Olan. peris 9-6, 11, 18, 14 Peres 18	Year :			Hunge d	***************************************	Ness II Sylashalastrusets
	facts: 4, 2, 8, 14, 18, 14		7.00 P. T. D	X	045 p. 14	X084 4.14	***	Mare 4 14 14			***************************************
_	Threat, 3-4, 5-10, 15-14	, and the		Thread: 13 C	Orece 8, 4,4-18, 14-18 Olace penie: 11,14,18 Anti feld: 1,19	Umbillane 1					Anilla, 9 Mytellie Starilie
			following (p.) score (Thesal P		25: 1 745: 10		**************************************	Committee de la commentación de		Ami faid 1 Despularisquia ap
		the state 1 X t Happen has	* K * * * * * * * * * * * * * * * * * *			740 1.E.C			Tobe 6.1 a 16	Interior interior interior	
-	Water L. C. C.	A THE PARTY AND PROPERTY OF PERSONS AND PARTY AND	• • • • • • • • • • • • • • • • • • •	***************************************		Mose 1.1.4	***************************************		X44. 1, 10, 11, 19-16		VALL 6 ALA L.
	Prost & S. C. B.	de state de la company de la c	***************************************	***************************************		7000 1.1			AND ARREST ABOVE DAMPEN AND AND THE REPORT OF THE PROPERTY AND ARREST AND AND AND AND AND AND AND AND AND AND	***************************************	Fore: 14 Cladesporture Tee: 1,16 T. mentarrobysa
		a s se men etellicement and so se	786; 1-4	man produce di constitucioni di Alicani		Nes. 1	-	•	na deren metaberaturen en besetzen beretzen bezoren beretzen bezoren	***************************************	Year Clades and
			Class perior	27.0			Antilla 10	• • • • • • • • • • • • • • • • • • •	0.54.p; 0 Koas, 4, 1,1		Ter 1 Paris 29.
		A M C SOUTH AND M CARREST AND AND ADDRESS OF THE REAL PROPERTY.	**************************************		is from a supplementation for the forest sections of the section o)	1	***************************************		_	
	and my .	100 to 10	Y 00001 Y	White It is	refinentias parentes que massa mantesante dipe		- 3	- I	Nese, 1, 8,1-11, Olans penial 9, Tee: 9		***************************************
			-		07W177F.T		İ	7.4. 1.4.	X44, 4, 6, 1, 4		Tra & And fuld Shorns op.
: \$	* Men-paik-peak	Manage and the sam	lias series.	***************************************		T		1	And fold		NA ANALAMANA AN AN ANALAMANA ANALAMA
			Land Marie						1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Contract of parameters and an extensive factors and the last of th	-

TABLE 22. RECOVERY OF PPLO EXPERIMENT V

i_						Sampling		Period						
Body Area	1	2	3	7.	3	9	7	8	9	10	11	12	13	14
						+		+					+	
		+		+		÷								
	+	÷			_			+	+	†	+			+
Groin		+				+								
Anal fold		+		-		-			+		_			
			÷											
Mouth	4	+		+										
Throat	+					+		+			+			
Groin								+						
Anal fold	+													
Mouth	+		+											
Throat								+		+		+		
Groin									+					
Annl fold	+		÷		÷	+					+			
Mouth	÷	+	÷											
Throat		+	+			·		+				+	+	+
Groin	+	+						+		+				
Clans pents	+			+										
Anal fold		+	+										-	

TABLE 22 --- Continued

EXPERIMENT VI

	14															
	13							•								
	12	+					+	+	<u> </u>			+		+	+	+
	11															
	10															
	6	+			+		+								+	
riod	8		,													
Sampling Period	7															
Samp	9	+				+				+	+					
	5												+			
	4											•				
	ဆ	+	+			+	+		+	-		+		+		
	2			+	_											
	1	+		+			+		-			+		+	+	
	Body Area	Mouth	Throat	Feces	Nose	Mouth	Throat	Groin	Glans penis	Feces	Mouth	Throat	Feces	Mouth	Throat	Glans penis
C. bicot	Number		21				22					23			24	

NOTE: Samples, other than feces, were taken only on sampling periods 1, 3, 6, 9 and 12.

TABLE 22 --- Concluded

EXPERIMENT VI

Number N	9.1.10							Samp	Sampling Period	riod						
Anal fold	Number	1	1	2	3	4	5	9	2	æ	6	10	11	12	13	14
Feces	25		+		+											
Anal fold		Feces							+	+		+				
Throat	26	Anal foid	+													
Throat	27															
Throat	28															
Throat + + + + + + + + + + + + + + + + + + +							Ru	ın VIII								
Axilla Glans penis Anal fold Throat Anal fold Feces Anal fold Anal fold Anal fold Anal fold Anal fold Anal fold Anal fold Anal fold Feces Gingiv:1 Anal fold Feces Gingiv:1 Anal fold Feces Herein Anal fold Anal fold Feces Anal fold Feces Anal fold Feces Anal fold Feces Anal fold Feces Anal fold Feces Anal fold Feces Anal fold Feces Anal fold Feces		Throat	+							+						
Glans penis	53	Axilla					+						+			+
Anal fold + + + + + + + + Mouth + <		Glans penis														+
Mouth + <td></td> <td>Anal fold</td> <td>+</td> <td>+</td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Anal fold	+	+	+											
Throat		Mouth					+									
Anal fold + Feces + - <	30	Throat	+													4-
Feces + <td>}</td> <td>Anal fold</td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	}	Anal fold	+													
Feces + + + + + + + + + - <td></td> <td>Feces</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td> <td></td>		Feces												+		
Feces	31															
Anal fold	32	Feces	+	+					+		+		+			
Anal fold + + Cingival + Anal fold + + Feces + + + + + + + + + + + + + + + + + + +							,	Run IX								
Gingivrl + Anal fold + Feces +	33	Anal fold		+												
Gingivrl + Anal fold + Feces + +	34					_										
Gingivrl + Anal fold + Feces +	35															
Anal fold + + Feces +		Gingival	+													
	36	Anal fold		+	_					*						
		Feces					+									***************************************

TABLE 29. DILUTIONS FROM WHICH ANAEROBIC BLOOD PLATES WERE MADE EXPERIMENT IX

Subject 33

Body Area						Sam	Sampling Pe	Period				
	۲	2	က	4	5	9	7	8	6	10	11	12
Nose	L	T	ı	ı	า	1	7	H	1	J	า	ı
Gingival	1	τ	-	1		-1	1	Н	ı	7	1	н
Throat	2	2	2	7	2	2	1	2	1	7	-1	н
Axilla	ı	T	1	2	1	1	1		П	н	H	1
Groin	1	1	1	7	2	2	1	1	7	2	2	2
Glans pents	J	ı	T	T	T	ı	า	T	L.	H	ы	П
Anal fold	1	1	2	2	2	2	2	2	1	1	7	1
Toes	1	1	cą	2	3	3	3	2	2	2	23	2
Scalp	า								ŋ			ħ
Ear	ı								7			7
Eye	r								1			ᆔ
Forearm	ľ								า			H
Umbilicus	ы								ı			J.
Electrode									H			H

 $a = 10^{-3}$, $1 = 10^{-4}$, $2 = 10^{-5}$, $3 = 10^{-6}$

TABLE 23 --- Continued

Subject 34

	12	IJ	1	2	1	2	Ţ	2	2	า	1	T	ı	H	ı
	11	L	ĭ	2	1	2	T	2	2						
	10	L	1	2	1	2	ı	1	2						
	6	ĭ	1	2	1	2	Г	1	2	T	1	ı	ı	L	ı
ərtod	8	1	1	1	Г	τ	า	1	2						
Sampling Period	7	7	1	1	1	1	T	ι	3						
Sam	9	T	1	2	.1	1	1	1	3						
	ဌ	Т	1	2	1	1	Г	2	2						
	4	7	1	2	T	1	T	2	7						
	3	Т	1	7	Т	1	7	2	7						
Mercange A. C. Tuddensor	2	7	1	2	T	1	ı	1	1						
	1	า	1	2	1	1	T	1	1	7	T	T	T	า	
	Body Area	Nose	Gingival	Throat	Axilla	Groin	Glans penis	Anal fold	Тоев	Scalp	Ear	Еуе	Forearm	Umbilicus	Electrode

TABLE 23 --- Continued

Subject 35

	12	L	1	1	1	2	1	2	3	T	1	ı	Ţ	Г	IJ
	11	T	1	1	1	2	T	2	3						
	10	L	1	1	τ	2	1	2	အ	_					
	6	L	1	1	τ	2	1	2	3	Т	1	ገ	Т	Т	า
riod	8	T	1	τ	τ	1	1	2	8						
Sampling Period	2	7	1	2	1	1	1	7	3						
Sam	9	Т	1	1	1	1	1	2	3						
	5	T	7	2	-	23	7	2	2						
	4	ı	н	2	H	2	1	2	2						
	က	Ч		23	-	2	2	2	2						
	2	L		2	ı	1	IJ	7	П						
	1	ы	٦	2	H	7	ı	1	7	T	IJ	IJ	ij	ᆡ	
	Body Ar a	Nose	Gingival	Throat	Axilla	Groin	Glans penis	Anal fold	Toes	Scalp	Ear	Eye	Forearm	Umbilicus	Electrode

TABLE 23 ---- Concluded

Subject 36

						Samp	Sampling Period	point				
Body Area	1	2	အ	4	5	9	7	8	6	10	11	12
Nose	귀	า	ᆈ	H	ı	Н	٦	٦	1		1	
Gingival	1	1	-	٦	-		1	ı	1	-	7	г
Throat	7	2	2	1	۲	2	2	2	27	73	2	67
Axilla	า	Т	ı	T	7	1	1	Ľ	1	1	1	1
Groin	τ	1	1	1		П	1	1	23	83	2	2
Glans pents	า	T	L	T	r	T	L	L	L	L	7	IJ
Anal fold	τ	1	2	2	2	τ	ι	1	2	2	7	2
Toes	1	1	2	2	2	3	3	3	3	3	3	က
Scalp	า								า			ı
Ear	ı								1			1
Eye	า				-				'n			IJ
Forearm	т								า			ı
Umbilicus	า								ı			า
Electrode									ı			ĭ

TABLE 24. OCCURRENCE OF MICROCOCCACEAE*
EXPERIMENT V

Unidentified Flavus Candidus Varians 3,5,9 3,5,9 3,14 4			Subjact 1	Subject Number 17			Subject N	Subject Number 18	Marie of constant property of special statements of special sp
at at at Ba Bious Area Bious Area Bious Area Bious Area Bious Area Bious Bious Area Bious	Body Area	Flavus			Unidentified	Flavus	Candidus	Varians	Unidentified
at at Bit Bit Bit Bit Bit Bit Bit Bit Bit Bi	Eye								8
at a Ba Itcus Area 6,11 Area 6 1 Area 6 1 1 Area 1 1 1 1 1 1 1 1 1 1 1 1 1	Ear		9						
at a B Ilcus Area Area 6 Area 6 Area 6 Area 1	Nose	5,7,10					3,5,9		
a 6,11 Ifcus 7 Area 6 s n n n arm Pents	Throat								
Ilcus 7 8/8 10,11 Area 6 12/2 10,11 s 4 4 n 4 4 arm 1 Penis 1	Axilla			6,11					
Area 6 820,11 Area 6 1220,11 1 1 1 1 1 1 1 1 1 1 1 1	Umbilicus		7					3,14	
Area 6 s n n n r n r n r n r Penis	Groin			8,10,11					***************************************
n Arm Penis	Anal Area		9			*			
n arm Penis	Feces								
arm Penis	Scalp				4				***
arm Penis	Mouth								
Penis	Forearm								***
Тоев	Glans Penis					1			
	Тоев								****

*Staphylococci not included

TABLE 24 --- Concluded

	***************************************	Subject N	Subject Number 19			Subject N	Subject Number 20	
Body Area	Flarus	Candidus	Varians	Unidentified	Flavus	Can⁴tdus	Varians	Unidentified
Еуе								14
Ear						12		
Nose	9, 10, 13							ere enemisierated Brance-Administrative Constitution and
Throat	13							
Axilla			3,6				6,7,13	
Umbilicus		5, 13						
Groin						8		
Anal Area		3						
Feces								
Soalp								
Mouth								
Foregrm								-
Glans Pents								
Тоев						2		

TABLE 25. MICROSCOPIC IDENTIFICATION OF AEROBIC DILUTION SERIES

Subject	Body Area	Micrococci	Streptococci	Gram Positive Rod	Gram Negative Rod	Gram Negative Rod
33	Scalp Nose Ear Eye Throat Gingival Axilla Umbilicus Groin Glans penis Anal fold Forearm Toe Electrode	9 1,7,8,9,10,12 3,9 9 1,7,8,12 7,12 1,7,9 1,3 1,7,8,9 1,6,7,8,12 1,7,8 1,3 1,7,8,9 9	10 3 7,8 1,8,12 9 3 1,9 8,12 12	7 7,12 1,7 1,3 7,8 7,12 7	9 7,10 9 1 7	6,10 10 8,9
34	Nose Ear Eye Throat Gingival Axilla Umbilicus Groin Glans penis Anal fold Forearm Toe	7,8,9 3 7 7,8,9 7,8,9,11,12 7,8,9 1,7,8 7,8	9,12 8 9,12 12 3 9 12 12 12	7,8,9 8 3 9 8 12	7 9 7,8	8 9

Numbers refer to sampling period.

TABLE 25 --- Concluded

Subject	Body Area	Micrococci	Streptococci	Gram Positive Rod	Gram Negative Rod	Gram Negative Rod
35	Nose Ear Eye Throat Gingival Axilla	6,7,8,12 11 3 6,7,8,12 6,7,8,12 6,7,8,11,12	12 12 12 11,12	6,7,8,12 6,7,8,11,	7	8
	Umbilicus Groin Glans penis Anal fold Forearm Toe	3 6,7,8,11,12 6,7,8,12 6,7,8,9,11, 12 3 6,7,8,9,11,	12 11,12	8 6,8,12 6,7,8,9 9	12 12 8,9 8	9
36	Scalp Nose Ear Eye Throat Gingival Axilla Umbilicus Groin Glans penis Anal fold Forearm Toe	9 6,7,8,9,12 9 3 6,9,12 6,7,8,8,12 6,7,8,9,12 3 6,7,8,9,12 6,8,9,12 6,9,12 3 6,7,8	3 9,12 12	7 9,12 6,8,9,12 6,7,8,9 6 8,9 8,9,12 6,7,8,9, 12 3 7,8	6,7,8 8,9 6,9 6 6,12 8,9,12 6,9	9 6 6,9 9 6,9

Numbers refer to sampling period.

TABLE 26. RECOVERY OF MICROCOCCACEAE FROM ROOM AREAS*

EXPERIMENT V

	19	+(2)	÷ -(2)	+(2)	+(2)			
	18	÷i	÷(2)	÷(2) ÷(2)	÷			
	17	-(2)			ı	+(2)	+ -(2)	
	16	-(2)			+	+(3)	+	
	15	+			+ 1	+ -(2)	+ 1	
	14					+	1	
	13	+(2)			ı	-(2)	+ -(3)	-(4)
	12	-(2)			+ 1	+(2)	÷ 1	
Hod	11	+(2)			+ 1	-(2)	÷ 1	
ng Pe	10	+1		-	+ 1	+ 1	+ 1	
Sampling Period	6	+			+ (3)	+ (2)	+(2)	
	æ	8			+ 1	+ 1	1	
	7				ı	+ 1	-(2)	
	9					1		
***************************************	9	1	1		+ 1			
	4	-(2)	ŧ		+(2)			
	က	÷	+	+	i			
	ભ	+	-(2)					
	-	+	+(2)					
	Arsa	Bed	Tablo	Window	Psnl. Hyg.	Foru Table	Aft Table	Filtor

<sup>positive congulase test
negative congulase test
mogrative congulase test
mogrative congulase test
mork performed by Mr. J. Rack and Mrs. B. Horstman, Miami Valley Hospital, Research Group, under contract AF33(657)-11716.
montract AF33(657)-11716.
montract AF33(657)-11716.
montract AF31(657)-11716.</sup>

TABLE 26 --- Continued

EXPERIMENT VI

	der de Commissioner de Legense des Commissioners de Legense des Commissioners de Legense des Commissioners de Legense de			S	Sampling Period	Period				
Area	7	2	ဇ	4	ສ	8	7	8	6	10
Bed	ŧ	+ -(2)	+ 1		+ (S)	-(2)	1	-(2)	-(2)	(3) +
Eating Table	+ -(2)								-(3)	-(3)
Fore Table		+ 1	1(2)	+ 1	÷ -(2)	I	-(2)	+ -(2)		
Aft Tablo	+(2) (2)	-(3)	-(2)	+(2)	÷ -(3)	+ 1		-(2)	+ 1	
Personal Hygiene	-(3)	1	I		+ -(2)	+ -(2)	-(2)	+	(2)- +	-(3)

+ m positive coagulase test - m negative coagulase test () m Number of differing strains

TABLE 26 --- Continued

EXPERIMENT VII

				ī			- ——
	13	+(3)	+(3)			+(2)	+(3)
	12	+ -(2)	+ -(2)			-(3)	+ 1
	11	+(4)		+(2)	+(2)		+(2)
	10	+(2)		+ (2)	+(2)		+(2)
	6	+(2)		+(2)	+(2)		+(2)
rlod	8	[⊥] (3) −(2)		+(3)	+(2) -(2)		+(2)
Sampling Period	7	⁺ (3) -(2)		+(2)	+(2)		+(2)
Samp	9	+(2)		+(4)			+(3) -(2)
	5	+(2) -		+	+(2) -(2)		+(2) -(2)
	4			+(2)	+(2)		
	3	+(2)	+ -(2)			+ -(3)	+ -(3)
	2	+ -(2)	+(2)			-(2)	-(3)
	1	+ 1	+			+	+ -(2)
	Area	Bed	Eating Table	Fore Table	Aft Table	Working Table	Floor

+ = positive coagulase test - = negative coagulase test () = Number of differing strains

TABLE 26 --- Continued

EXPERIMENT VIII

	11	+(2)+	+ -(2)			+(2) -(2)	+(2) -(2)
	01	•	-			+	+
	6	+(2)		+ -(2)	+ 1		+(3)
	8	+(2)		+ 1	+(2)		+ 1
pq	4	+(2)			+(2)		+(2)
Sampling Period	9	+(2)		1	+(2)		+(2)
Sampl	5	+ -(2)		+(3)	+(3)		+(4)
	Ð.	+(2)		+(4)	+ -(2)		+(2)
	3	1		+ 1	1		-(2)
	2	-(2)	+(2)		+ 1		+
	1	+(2)	+(3)		+(2)		+ 1
	Area	Bed	Eating Table	Fore Table	Aft Table	Working Table	Floor

+ = positive coagulase test - = negative coagulase test () = Number of differing strains

TABLE 26 --- Concluded

EXPERIMENT IX

	12	+(2)	+			+ -(2)	+(2)
	11	+(2)		+(3)	+(2)		+(2)
	10	+(3)		+(2)	+(2)		+(2)
	တ	+(2)		+(2)	+(2)		+(2)
	80	+ 1		+(2)	+ 1		+(2)
eriod	2	+(2)		+(2)	+ 1		+(3)
Sampling Period	9	+ -(2)		+(2)	+(2)		+(2)
Sam	ည	+(2)		+ -(2)	-(3)		÷ -(2)
	4,	+(2) -		+ -(3)	+(2)		+(2)
	3	+(2)		+ 1	+(2)		-(3)
	2	+ -(2)		+(2)	+(2)		+ 1
	1	+ 1	+ -(3)			+ 1	-(3)
	Area	Bed	Eating TJe	Fore Table	Aft Table	Working Teble	Floor

+ = positive coagulase test - = negative coagulase test () = Number of differing strains

TABLE 27. BACTERIOLOGICAL RESULTS OF ENVIRONMENTAL MONITORING

EXPERIMENT V

TABLE 27 --- Continued EXPERIMENT VI

ş:	-												1	Dot Jes ET	
											_		_		
:		corymeterier			Liebedodie										
:	•	becillas				becilius		4	stape	-			etaph	1	}
	2							1401	staph			_	etaph	1	a coper
	=				Inclohectifus			staph		1	}	Active Cours			Bycococcus luteras
	92	staph klebetells	45		Metatella	otaçê		staph				4			8
Sampling Period	•	pos sod mil	a) a		staph klobstella	al al		etaça			}	*taph			
Sempl	•	4		1	etark Elebatella	stach klebatella	N.a.N	elap.			ad the	ę.		-	d the
		ata):		etaph	ataph .	di di		eta;			a tage	3,18,26			4
1	•	staph		staph Liebstella	staph gm pue rode	stapt gm pos rod		staph			staph				staph
	•	staph		404.	a taph	a tage		etare.			4011	ti.		_	d de la de
	•		bactilus	e Laps	quin.						dq.	200	_		
	-	, action	conyn gm neg rest- ing form scuno	a tupa	stach	Etaph		4.10		udma				etaph etaph	4
		staph		#SET #	PC#C#	stays.		1	2	staph desired				staph	40.51
		- laga	staph		dqale	e taph			e de la composition della composition della comp	staph				staph	eraph
		£ 2	ng Table	Fore Table	At Table	Parl. Hyp.			2	Esting Table	161	2.1. (able		Working Table staph	Floor

TABLE 27 --- Concluded EXPERIMENT VIII

Area	-	~		•	•	•		•	•	97	11	12	13	1.4	1.5	91
3	ataph	staph	etaph	coryn (5-) staph	staph coryn (5-)	PLACE	staph corys (5-)	stagt	etaph	porte post and tall	staph		por sod mil	paos eod mã		دەنئە (ي-)
Aft Table	qdene	bacillus stayh yeast	actoria	contract (unidomic station	S	states (B) school	ntagh corya (seroi yead	staph	mic rococci		ectino album		tan bos cocci Ess bos cocci	Em pos cocci		Į
Fore Table		becilins	ądrje	garge (mappen) (col)s	atapa	441.		at the	actor a	per sod E		gm poe cocci	free pos coeci (saldeni gra			No.
Evaluator															_	
Paul. Hyg.	staph	staph	ecutor	pos Ben må gåene	a tapta	staph corys (hogi:)	P	1011	staph	yena.í qenta	etaph corya (A)					_
Eatlag ToNe	staph	4					_			a taga	1					

								į						
3	atach	3	stack corys (A)	1	401	e taph	ation	etaph	1	4571	atapa corya (B	staph C. peruda. C. serosta corya (B)		
Eating Table staph	\$	1	1	1	staph acting albus	staph actino albus actino flavus	staph	Notes	Plaps	1	247	ataph.		,
Aft Table		ąde;s	staph coryn (A)	a taget	staph C. striales	e profession de la constante d	PLASE	de Carlo	ą.	etaph C. scroads	1	corra (B		·
Work Table	staph											4		•
Floor	staph actino albus actino flavus	g (w)	staph coryn (A)	g dens	staph C. striatum	staph	Plays	etaph	stapk C. strishim	1	staph cotys (Bi	staph C. xerosis		,
lore Table			(V) Luas		C. striatum					Contract	(A) succession	(B)		,

TABLE 28. OCCURRENCE OF VARIOUS MICROCRGANISMS ON AXILIA

								Sub	ject	Z	Numb	er							
Microflora	17	18	1.9	20	21	22	23	24	25 2	26 2	27 2	28 2	29 30	0 31	1 32	33	34	35	36
Aerobacter		×	×	×									_		<u> </u>	<u> </u>		 	<u> </u>
PPLO									-			_	×						
Streptococcus	×								-			-		_					
Corynebacteria	×	×	×	×		×	×			×	×	×	×	×	×	×	×	×	×
Micrococcus	×		×	×															
Bacillaceae	×			×		×	×		×	×				_					<u> </u>
Proactinomyces	×		×	×	×	×	×	×	×			×		_					<u> </u>
Neisseria		×	×	×	×									×		_		<u> </u>	
Staphylococcus	×	×	×	Y.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Sarcina	×	×					_		 -	 			 			×	<u> </u>		ļ
Obligate anaerobes	×						_			-	-	-	_	-	_	<u> </u>			<u> </u>
Facultative anaerobes		×	×						-	-	_		_					<u> </u>	<u> </u>
Mimae		×			-		 	-	_	_			_			_			
Yeast							×	-			-	-	-			_			<u> </u>
Gaffkya										-	 	-	-	-	×	├-	<u> </u>	<u> </u>	ļ
Helminthosporium sp.									×	_		_	_			<u> </u>			<u> </u>
Mycella sterila										<u> </u>	×		-		-	ļ			ļ
Nitrate negative rcd									×						-	<u> </u>			ļ
Haemophilus								×					-			<u> </u>	_	<u> </u>	

TABLE 29. OCCURRENCE OF VARIOUS MICROORGANISMS ON ANAL AREA

	L							Su	apje	ct	Numbe	abe	r.							
Microflora	17	18	19	20	2.1	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
E. coll		×	×	×		×	×		×						×			-		
Aerobacter				×		×														
Alcalescens dispar						×									×					
PPLO	×	×	×	×					×	×			×	×						
Stroptococci			×	×	×	×	×	×	×	×	×	×								
Corynebacteria	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Micrococci	×		×	-									I							
Clostridium					×															
Alcaligones				×																
Lactobacil'us							×	×										_		
Bacillacene		×				×	×	×												
Proactinomyces				×	×		×	×												
Nelsscria											×									
Апасторев	×	×	×	×																
Staphylococcus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Obligate anaerobes	×	×	×	×															-`-	
Facultative anaerobes	×	×	×	×																
Candida					×															
Trichosporium							×			×	×									
Sarcina	×	×													×					
Scopulariopsis sp.									×			×								

TABLE 30. OCCURRENCE OF VARIOUS MICROORGANISMS IN UMBILICUS

				l				S.	Subject		2	Number	١.							
Microflora	17	18	1.9	20	21	22	23	24	25		27	28	29	30	31	32	33	34	35	36
Streptococci			×	×											<u> </u>					1
Coryncbacteria			×				×		-				×		×		×	×	<u> </u>	×
Micrococci	*	×	×																	
Bacillaceae					,		×	×			×									1
Proactinomyces							×	×												
Neisseria	×		×																	
Staphylococcus	×	×	×	×	×	×	×	×	*	×	×	×	×	×	×	×	×	×	×	×
Facultative anaerobes			×						_											<u> </u>
Pencillium sp.											×									
Scopulariopsis									×											

TABLE 31. OCCURRENCE OF VARIOUS MICROORGANISMS IN EYE

								Su	Subjec	ot z	Number	ber								
Microflora	17	18	19	20	21	22	23	24	22	26	27	28	29	30	31	32	33	34	35	36
E. coli		×													×					
Aerobacter		×																		Ì
Streptococci				×														 		
Corynebactería	×	×		×													×			×
Micrococci		×		×											2-72					
Proactinoinyces						×									1		 			
Neisseria			×]
Staphylococcus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Moraxella		×			×			×					-							
Facultative anaerobes				×																
Obligate anaerobes	×																			

TABLE 32. OCCURRENCE OF VARIOUS MICROORGANISMS ON SCALP

								Sub	Subject	l	Number	ber								
Microflora	17	18	19	20	21	22	23	24	25	92	27	28	29	30	31	32	33	34	35	36
Corynebacteria		×							×	×	¥		×	×		×	×	×		×
Micrococci	×																			
Bacillaceao		×																		
Proactinomyces							×	×												
Noisseria				×																1
Staphylococcus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Trichosporum											×									
Facultative amerobes				×							_									Ì

TABLE 33, OCCURRENCE OF VARIOUS MICROORGANISMS IN EAR

								Sut	Subject		Numbo	ber								
Microflora	17	18	19	20	12	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Corynobacteria	×	×	×	×					×	×	×	×	×		×	×	×	×		×
Micrococci	×			×																
Lactobacillus					×	×														
Bacillacene		×		×	×	×	×		×		×									
Prodetinomyces		×	×	×	×	×	×	×			×	×								
Notasoria			×			×		×												
Ponicillium sp.												×								
Staphylococcus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×
Mimao	×	×																		
Saroina			×	×																
Candida sp.					×						×		×			×				
Moraxella					×															

TABLE 34. OCCURRENCE OF VARIOUS MICROORGANISMS ON TOES

	L																	l		
								S	afqn	ct	Numb	her								
Microflora	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
E. coli																×	×	×	×	×
Corynebacteria	×			×					×	×	×	×	×	×		×				
Micrococci				×																i I
Bacillaceae					×															
Proactinomyces	×		×		×	×	×	×												
Staphylococcus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Yeasts			×																	
T. rubrum					×															
Penicillium sp.											×		×							
Pseudomonas								_						×						
T. mentagrophytes															×					
															-	-			-	ĺ

TABLE 35. NUTRIENT COMPOSITION OF THE DIET

	Experiment	Calories Kcal	Protein (gm)	Fat (gm)	Carbo- hydrate (gm)	Fiber (gm)
v	Fresh	2620	110	80	315	6-9
VI	Dehydrated and Bite-sized Foods	2660	116	90	280	5-7
VII	Fresh (21 days)* Liquid (21 days)*	2720 2700	72 72	174 173	216 213	3-6 0
VIII	Fresh (21 days)* Liquid (21 days)*	2760 2750	72 72	176 176	220 222	2~5 0
IX	Fresh*	2780	90	100	379	3

^{*} Calculated

TABLE 36. AEROBIC MICROBIAL PROFILE OF SUBJECTS

Subject 17

O.R. staph Neisberis Coryn. S proact. staph stay 3 State of the state * taph 374 • teph 2 2 \Rightarrow Jac. proset. Sory Leph m1110 . i 01/4 dept 2 2 2 Ë 3 aaliv riiis etaph J · H Barcina etaph prosect. Lacto. R Mc. 1,40 Ē 2 484 # ..eult laste 2 Prio P Mde. ato, 2 2 2 뉟 ĉ ż 2 6 2 lact. atthe PPLO staph ate. 5 12 0 0 2 Ė 2 占 ā saliv,nitis ///L3 Haemphilus staph saliv, etaph satino, GeR laerophilus Coryn. P Aerovacter .. coli ..ooli hal-Yeast Coryn ateph æ: • • ata;h o taph Ę Ę Prio staph at apt nta. staph *taph oteph ă Saspling Period 2 2 Ę ř 2 2 2 L. colt Sale nio. entero Neisseria (0-3, etaph T. rubrum Corym. S 1 - R 1Acto. staph Lago Lago 두 달 'n 2 ŝ PPLO noraxella staph ne nto. Jaroina staph . rdo. entero eteph *** C.T. 5 % 5 Ë 2 Saroin E. col1 staph rde. e tap . taph 2 ž 5 ê 5 2 Asrobacter .. cold 5alateph ä Ę Ħ ā 2 2 2 ž ż ç 0 • R Coryn. S staph Nelseria staph nr O • 3 Soryn. athity staph actino etaph sally lacto it Ap 1405 Ë Ę PPLO, staph T. rubrum Coryn. 3 staph Maero-Philus taph staph ig ph de la et aph PF/5 27.42 ä ż E. Coll E. Coll 341 entero 7. coli rtaph VII. atech 5 Ę 2 Ę Olens pents Unbilious Anal fold Rody Area Throat Ax111s Socie Mouth Oroth Tecns .00 *** YA. 2

							Sampling Period	er tod						
Body Area	 -	2	3	7	2	9	7	0	6	10	n	12	ລ	π
Scalp	2	otern	3 + R,Bac.	n.s	878	#11	an	2		2	90	na na	9.0	pt
Ner.	1	eteph	N	ני	T.	e caph	o. R Dio.	Gran Fing. tiny rod rithae	etaph	0 + 11 Nac.	ataph ataph	• Ceph	× . 0 • 6 €	etapk)
5	a taph	ataph h	nto.	ŧ	Moraxella etaph	5. coll F.coll Sal- staph	ataph	Soryn, X staph	'n	s taph	staph	Þ	corym. X	(des)
No be	etaph	at aph	mto. Prio	e *	mio. Saroina etaph	Saroina stiti	salsv staph	O . R Nelseeria proact. staph	ataph	0 + R Lacto proact. starh	•t4ph	ħ	44 5 7	14ph
Kouth	9	Mitte, Prio saliv staph o + R	PPLO Keleseria saliv	3	8 8	ne	.	•	saliv Maioseria staph Actino,	• u	1	au	*	mittle, PPLO Neisseria selin, eleph Actino
Throat	PPLO	Lasto	nitie, boto etaph	pr	lasto	PPLO eteph	DALLY	mitte PPio	nitis Herophilue	Atts# lacto	Hallv, I'FLO	staph	mitia	O-R, lacto Netseeria
AKILIA	Asrobacter	au.	JU.	nr	ateth	entero etaph	deh,drenege tiny rods doryne S rimse	staph	Btaph	0 • 3 Saroina Coryn. 3	ħ	2	<u>a</u>	F
Pores.ru	2	et aph	Plaph	£2	22	2	22	2	*CEDS	118	178	•	***	nr.
Unbillous	ŧ	staph	Alo. Saroins etaph	etaph	• taph	a taph	entero Coryn. 5 staph	otaph	ntaph	Corym. 3 *Laph	ataph	Caryn. 3 staph	• taph	Me. staph
arota	etaph	staph	0.R,proset.	ā	꾜	etaph	G-IK, staph	PPIO, ataph	* Laph	O+R, etaph	ataph	0+R, staph	steph	• taph
Olans penis	94	0.R, staph	K + D	Nelseeria	şz.	27	- L	138	5	29	72	5.5	5	atapk
Anal fold	E. coll FPLO O+fl, Dac. staph	5	2	ب ال	atoph	ia i	æ •	2	G + N Hac. Btaph	z. coll z. coll Otton etaph	à	O • R Bao. etaph	a a	늄
7e0e*	E. cold Assobacter E.c. 11 Eals E. cold E. cold Clip(E. cold Bli Olly(Elli C. albicare	Astrobacter E. coli E. coli Olly: Bli	Aerobacter E. coli E.coli Bale Lacto O + R	K. coli K.coli Sale staph	%, coli bovia mitia Abdotorula staph	L. coll	E. coli E.coli Sel- ealty	coll Sal	Aerobacter staph	open,	2	ŧ	.	• a
Toes	90	staph	2	P.8	2	=	= 0	28	2	D#	25	2	***	*taph

i i i i i i i i i i i i i i i i i i i			***************************************		***************************************	***************************************			***************************************	***************************************	41694-1614 41611-1814-1909	***************************************		Total and sections of the sections
		h	L	h	, Presententiannes et et en experienten	(411,0004,000,000,000,000,000,000,000,000	Darys Lag Ferson	eriod	Animatement and the second	J				
Body Area	-	~	٦	-7	5	¢	7	5	,	2	7.7	Ŧ	7	, L.L.
30410	2	etaph	71	28	•u	411	•	ŧ	11.	2	==	.	8	71.0
7.2	staph	s taph	7.	N.	* taph	# + 0	Noinporta proact. staph	# taph	s taph	Nateerle	atapli	o e K Ataph	4	• taph
Kye	ataph	staph	N.	Malsouria	2	staph	4	5	2	ž	Ł	etaph	ī	# taph
H080	*Caph	• taph	• taph	J.	M	111	deft, Bad. Joryn. 3 Kaph	Nolweerla staph	nio, deil Inglo steph	nic, dell Meisseria Lacto, staph	saliv, steph	MLLY, OVI Lacto #Laph	Mis., C.R. Incto staph	O + B Lacto
Mouth	7.8	nitte, PPLO Hemphilue Hemphilum Heimeria etrep, Pyre A saliv estiv, steph	Remphilus Reinseria salic	7.9	• "	ŧ	4 70	an a	mitting saliv actino, philo ataph, 19-11 Herophilus Neisureria	gr.		11.9	n q	nittagealiv Heacchilue Neisseria antino. preumocacci
Throat	coryn. l	adtin polic Lacto Coryn, 2	rutis Lato Joryn, F	naliv Lactor Coryn, F	, ucle	ALLIO Noiseria	Corp.n. r.	Aerchauter Altin Price par-	881189 41810	adity ritch ritch ritch right deft, latto	ędyn a	ealty, mits ppic, staph o - k Kemophilus coryn, P	nio. naliv nicio	H • •
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(Moilian)	ataph	staph	TV.	75	101	_	11. T. T. T. T. T. T. T. T. T. T. T. T. T.	3.T		wapti	Melaseria	¥ •	ric., steph	nr
orotn	Aerobacter	par. a taph	* Laph	Lar	III.	pare, staph	antero par-	41411	ур с о а • н	dorokanter d • k Kataenta	Aerobaster G : A eteph	ı.	Aerobacter G • R par•	ħ
Olane tenis	Da .	Aerobacter Hotsperia	herokaater par., Ateph	ILI	73	=======================================	กส	2	r . c	th.	n#	n#	5 10	# 0
AIM FOLI	PYIO	17	#10 PPLA	11°	Pritugge Seryn. 3 staph	PPLO Coryn. S			Corpm. B		r. colt ritis, 3-k corm. 3	6 - R Caryn. 3	J.	à
# # # # # # # # # # # # # # # # # # #	en'ero	L. coll	14734465AV	Agralanter collinal	. coll dale	entero 0 - 11	1 8 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1,001 1,001 1,001	on, staph shotorula scolt bal-	Lerya, a	*nt+ro	44	20	a
1001	7.8	pronat.	prodot.		29	8.5	U.	Ē	j r	F1.6	#12	40	ท	22.

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		etaph rr	Neteeeria	2 2	= 2	2 2		2 .2	eu eu	N. O. 3	N. n. n. n. n.	N. N. N. N. N. N. N. N. N. N. N. N. N. N	N. N. N. N. N. N. N. N. N. N. N. N. N. N	NA O O O O O O O O O O O O O O O O O O O
Eye Pe	-	2	2	2	Ė				Tr.	At Corys	Nr. CO - K COPYD. X	nr nr Corys. X	nr nr Corps. X	Ar Ar Ar Ar Corpus X
Nose staph	Ì	• taph	. T	2	TAC S	2.5	n Remophilium		Kamophthus	Renophilus stapi	Herophillus stapis	Recophilius staph staph	Recopiling staph staph staph staph ctaph	Henophillus staph staph staph staph
Mouth ne		Prio, st.oh saliv strop-type A	FFLO, etaph actino. strep-type A Netsmeria	72	2		D D	20	7	110	116	ne na salvyvila Standara Stania Atrie	ne na seasch ne seasch ne Seasch ne Seasch ne seasch ne	THE THE WALLY PPILD TO THE THE THE THE THE THE THE THE THE THE
Throat nr		rrio	17:LO Lacto	2	Peo to	Shodotorula lasto	torula		M CALFORATET	2	Acto Trio, 0:8 lacto	hr Sitrobacter salivating Henophilus lacto lacto lacto lacto	Anoto latto latto latto latto latto latto latto latto latto latto latto latto latto latto latto latto latto latto	Acto late late late late late late late late
AKILLA AND	Aerobacter etaph	e taph	J.	*Laph	taph		Alo,D.R proact. staph	riaph proact, staph steph	i –	ria).	staph staph	side, stapis stapis	ato, staph staph 13.1, Pac. 15.1,	atto. etaph etaph 13-11, Pac. staph proact.
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oroin etaph		FTID taph	ud Pra	1 (4) to	z		a taph	# CA	1(4))		staph nic., staph	און אנשיום און אנשיום און און און און און און און און און און	Waph had, etaph tr FFLD	TATO TATO THE PAILS BLADD
Olane penis na	F	ppes	staph	D. D. C. C. C. C. C. C. C. C. C. C. C. C. C.	20	T	110	11.9	77	# dil	114 114	14.20,041	10 ha 11-123,5411 ha	11.27.5541 1.8 13.4
Anal fold E. c	21. 3ale	E. coll Asrobacter E.coll 52 coll "coll 381+ Priogstaph Coryn. P	7FIO 0 • R Coryn. P	E. col.	staph		Alcalightee nitie entero Eccoli Sal-	Alcalighes antoro	2	mtaro 0 • 3	Mrtaro 0 · n	Mitaro Mr Arr	where or a staph	where or a staph 8, cold of the cold of th
reges ente	entero E. coll E.coll Salv	K. coli K.coli Sal-	it coli Krobii Sale entero	Aerobacter G. albicane E. coli	Aerobadier E. coli E.coli Sal- par-, staph		1	E. cold E.cold 3ste	1	E.cold Sile N. cold Sale Front Proact.	E.cold Sate Nacto Ameto E.cold Sate Doving G + H Proact. S. cold	E.coli Jate Lacto Jate J. H. E.coli Bate Bate G. H. Lacto G. H. Lacto G. H. Lacto G. H. Lacto W. quil Lacto	E. coll Matto Matto J. H. Lacto E.coll 381. N. coll 381. Days coll 180. N. coll 180.	E. coll Matto Matto J. H. Latto na E. coll 3st. N. coll 3al. bovis d. coll latto na d. H. Latto N. coll N. coll
Toss		nto., 0.fl	Coryn. 5	22	=	1	•u	25		10 miles	7 1	TO THE PROPERTY OF THE PROPERT	14 01 ED	ne etaph ha

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		. Ž		Parantaple Serviced In Mira	Par. Lasto	47-14 11-14	ntaph ataph	atali.	Att)	H. Califf	Mid. Jack	S . X Lauto			1	2
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. 10"6 lowest dilution of feces plated

TABLE 36 --- Continued

Subject 26

Noisearia saliv mitis Coryn. 30 16 Beach Coryniep. Corpa. Pat. A Staph Corpa.sp. Frank Trien. Corpu.S. eteph Corya.ep. Pemospo Ko siddu saliy mitis staph facoulto eteph Coryn,5. feecalia Kemophilus Massaria selly salids Corpn. P. Selly salids Corpn. P. Manaphilus M. Flave selly selly selly selly fascalle Coryn. Corrn Pat. A a 2 stuph selly feecalls Coryn.3. Coryn. Pat. A Coryn. Pat. A 2 Aerobacter staph Trioh. Corpe.8. Coryn.ep N. flava seliv attis Coryn. P N. flava seliv Pen.ep. 2 te th Arrobacter frion. staph Trion. Corpu.3. N. sicos staph saliv mitis Ħ atep. Hemoshilus N. flava Netseeria saliv mitis sality feecalis atent Atta teph. atapi. Pat.A steph N. flave staph salty atta Corynalita staph staph staph ns Sampling Perriod tage. Trich Trioh. Corress weak Alk. dispar feccile Coryn.? N. elcom staph saliv tach. frieh. CoryndatA staph ne Coryn.ep. N. flava seliv adtis Coryn.ep. frich. trich. et e p staph salty nitte Alk,dispar lacto N. #100a ##14# ##14# Coryn. sp K. flave staph Coryn.P N. micon maily maitie e taph Alk-dispar faccalis N. Block Selliv settis Nemcobilus saliv N. flava mitis Nelseria saliv mitis tron. Bao, staph staph 17.18. 14.09. e taph Coryn. sp. Hemophilus N. flava Neisseria Gaffiya saliv, attis Alkadispe: saliv fesselia Corym.B. frish. 2 Alk-diepar Lacto ne Asperg.sp. stapn A. Dave se 10"6 lowest dilution of feese plaint ä Triah. Corps.90 Corps.30 week Alk. N. flava N. sicos saliv mitis dorym. taph 477 3 Coryn. Ma.A. staph Lato Coryn, sp Heryddlus sall', attis Alk-diepar facualis Corym. By Caryn.3+ Corya. 1 reph ä ä Oabilions Stang anale Anal fold Body Area Foreare Throat AEILEA Soalo Mouth

TABLE 36 --- Continued

								Sampling Period	Period							
Body Area	1	2	3	7	5	9	7	9	9	01	า	12	ຕ	ıμ	15	97
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Jak.	Cand.spe	Cend. sp. Coryn.PatA	Card.sp.	Candasp.	Cand. sp	Cand. sp. Bac, Coryn Pat. A	Cand. sp	Cand.sp Corym.Mat.A	Cand a up	Cand. sp.	Cand. sp	Cand.sp	Cand.sp	Card. sp Actino. albus	Cand.sp Coryn. Pat. A	Ħ
Sys	otaph	2	ns	2		5	ยน	staph i	ពន	2	ns	2	52	ns	18	staph
Nose	E. coll Joryn.P staph	E. coli staph	رد د د	Terubrus staph saliv	Cand.1p. staph	S.albicana staph	Rhodo. Cand. sp. staph	Coryn.P Coryn Fen., staph staph Hemoghilus N.flava	<u>a</u>	staph	Coryn. P staph	staph	ž.	T.rubrum Coryn. P	E. coli Corpa. P	Peni.sp. T.rubrum faccails
Mouth	C.elbicans Lactoforyn sp., Sarcina Herophilus Neisseria	Galbicans saliv	C.albicans Herophilus Heisopria saliv,Sardia faccalis		C.albkcand Hnlocerla stephenliv Sarciaritis faccalis	Calbicans Na sicea soliv faecalis	C.albkonus nallymitis Neisseria Saroina	C.albican C	C.albicuns N.sicca staph saliv mitto	Calbicans Calbicar Lacto Hodotor H. sice Coryn.sp. Staph H. sice sallv,mitis saliv	24.	lacto saliv	Woodotorula saliv mitis	saliv mitir	lacto Coryn.sp. saliv mitis	Galbicani saliv
Throat		C.albioms (C.albicans staph	C.albicans C.albicans Coryu.P	_		saliv mitis		cans va			20	_	Caryn. P	C.albicans Hemophilus	C.albicani
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Olans penis	ä	n	Coryn. S+ staph	Coryn. S* r	ั้	Coryn. St staph	staph	Corym.3. staph	Coryn. 3+	Corym. St staph	frich. staph	nr	nr	Trich.	Trich.	Joryn. 3.
Anal fold	Corpn. S.	ង	ns	2	na	2	ne	Irich. Lacto	52	ns T	2	eu eu	eu eu	Su Su	su.	Drich,staph Coryn. S. N. flava farcalis
. seese	Lacto factalis	Z. coll Acrobac Galbicans E. coll faccalis C. albic milis	5 5 .	E. coll A Pattern I K faccalis	faccalls i	E. coli Pattorn I C.albicuna Hally faecalis	E. coll Pattern I factalls	". cold Antrobacter Arrobacter Calbicans Lactostaff staph smilystils faccalds faccils		Agrobucter Bethesda- C.albicans Ballerup lacto staph Sally lacalis facelis durans		nerobacter E. co. Stabbicans lacto faccalis stabh	E. coli lacto strbh faecalis	E. coll C.slbicans Staph facelis	faccalis	şu
Toos	Corym. 5. staph	21	su.	u su	ı gu	eu	มอ	Pen. sp. r staph	ns	ns	ns	ns	ນອີ	25	tu\$	กร
*Cand. sp. p	*Cand. sp. probably C. gullllemondi; ** 10-6 lowest dilution	dlllemonds	13 ** 10-6 20	west dilutic	on of feces plated;		I Pattern I = +	H 71 C	/a13.							

								Subject 28	. 28							
Sody Area		ľ	ľ					Samplifin	Sampling Period	***************************************			***************************************			
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Throat	Coryn. 3.	Kenophilus N. Class	Coryne 3.	Serya. 3.	N. Block	W. Clave		ı	Corre	1 C.				attie		
		atte atte	taph	1	AT THE	proact.	etaph pality	4	M. Dave	proset.	N. Dava	Hemophilus at moh	Coryn. S.	Coryn. S. Henophilus	Coryn. S. Hemophilis	N. filava
			mitie						A STITE	mitte	mit1e	A		etliv	N. Flava	MITTIN
*******	á	Corym. Mat A staph staph	• teph	Coryn.Patk	Grow Pat A		Coryn. Pat ACoryn. Pata staph	ntaph	Corym.Path	•taph	et en			mitte	mitta	
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	ngnan n	do.	staph	Coryn.Path	Coryn.PatA Coryn.PatA	staph	CorynPat & Blaph	Blaph	taph	T.	e taph	Ę	1 2	a	80	Ħ
Olans penis	ħ	ataph	staph	Colyn. S+		Coryn. 3.	T	*taph	-taph	• taph	stanh			1		à
Anal fold	300p. sp.	2	ns	\top	2	100	80	t and				1	ł l	Ħ	ä	Corpu.
	a Caph							Path	-	.	a	##	•a	2	2	Coryn. S.
	E. cold laoto faecalis	E, coli	faecalis	E. coll faccalis	E. colf	E. cold fasoalls	F. cold Pattern II F		E. coli Lacto Geoslis	Pattern I Rec. faccalis	L. coli fascalis	E. coll factalis	facealts E. coli	E. col1	faccalis	etaph
Toss	Coryn.Pat.A		200	:	ns n	80	Τ	reson 118								
10-6 10ve	at dilution of	fecce nlat		1		1		Pat. A	a	•	î	29 20	• 0	na na	*a	etaph fancelle
Pattern I	Pattern II * A/Ng3 + 0 (Does not type Salmonella,	1) 0 · 5 6//	bee not typ	· Salmonella		Arisona, or Bethesda-Ballarup)	-Ballarup)									

TABLE 36 --- Continued

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Pode term		ŕ	ŀ				•	DOLLAR BUTTONS	נועבוסם	5		5	,	-	,];
BOOK VIAN	4	<u>, </u>	٠ -	#	Ŷ	٥	,	0	^	07	#	2	3	3	3	9
Sealp	ne	etaph	2	n.e	ne	กล	ne	†a	eteph	9 0	n#	ā	a a	9 11	pe .	Coryn. 8. etaph
ž	Cand. ep.	ntaph	Cand.ep. eteph	uden.	etaph	etaph	udra •	uđe 1 e	ųdras	ų <i>d</i> ma e	etaph	staph	3	22	Coryn. P	a.
e Ca	20	e taph	a	ā	a d	a	2	a	rap.	2	Z	ā	a	22	a	et. b
₩0	Pen.ep. etaph	Pen.ery staph	• taph	• teph	Coryn. P	Asperg. sp.	Coryn, P. Asperg.sp. stanh	Coryn. S staph	Asperg. sp.	Coryn. Path Coryn. Path staph	•teph	e taph	Coryn. P	Bao. Corpu. Pat. A	Corya. P	Coryns P Aspergsps
Kouth	ì	뉱	• teph	OAt.	etaph	Coryn.Path	ataph	• taph	•taph	X, f'.004	staph	ارا الاراما	h	a	a	ä
Throat	Nedsperda PP.io	2	Bao.	à	ä	St.	Bad. N. elcoa	7. 2. 2. 2. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	staph	Coryn. 5 N.perflava	N. sloos	à	2	Coryn.P.tA Meisseria M. sicon Pat. I	Noisseria Pat. I	Rhodo.
ARILLA	staph	Coryn. 3 Coryn. 3. staph	ataph	staph	Coryn. 3. staph	Corym. S Corym. S taph	staph	State)	eteph	Saryn. St	7716 Reph	• teph	h	27.0	Coryn. B.	ħ
Poreare	2	staph	a	2	20	2	a	2	staph	2	2	2	a	a	a	* tapb
Umbilious	22	ä	90	ā	2	a	2		• taph	2	2	ā	a	2 0	2	staph Coryn. 3.
Oreta	• taph	Coryn. 9	etaph	# taph	Caryn. S staph	etaph	e taph	rtaph the	1	Act.elbus Act.flavus etaph	• taph	• tagh	Bao.	占	à	Cerya. S
Olane penie	ataph	eteph	eteph	Pesubaba Coryn. 3+ staph	Pseudomonas N.peurlava Corym. 3- staph	Perdozonas staph staph		e taph Pseudosonae	Pseudominas N.perflava staph	Peardmenas staph	Pseudonona ataph	Coryn. 34 staph	Peudoscos	Neudonones nr K.perflava	ii ii	Corya. 9.
Anal fold	Coryn Pat B	ā	ā	å	n •	a	a	Coryn, ens.	3	a	ā	a	8	ā	• a	Coryn.ep. Coryn.fat. A staph, PPto
Peca de	reaph	Peubras staph	E.coll, Foly n B 0126:316 Freudomora	2 2	eu .	E.coll, Poly B 0126:316	Coryn, ens.	Corpr.ens. E.ocil. Phy terobacter A027788 E. coll. Poly Outchfoly A Rich etaph 127788 Poly B	Aerobacter R. cold Poly A 127:88 Poly B	Aerobester	Aerobacter R.coll,Foly A. Olzie86 Poly B 0126:D16 018: Corp. sp steph	E, 0013	E.cold-Phy A Ollical Ol27:B8 Foly# Ol26 B6,lacto Coryn. F Coryn. S	Aerobacter Curre, P. E. sooil Phy. P. A. 912188 Poly B. 9126816 Corps. S. Co	Carps P	ā
Toes	 •	Pan. Sp. staph Corym. 3.	9 U	8 0	eu.	P a	ā	e d	etaph	Ē	• 0	e d	2	8 0	ā	dep.
##10-6 10VB.	eslo-6 lovest dilution of faces plated	f feces pla	Led													

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_								Bempling Period	Period	*						
hody Area	٦	~	~	\$	5	9	L	40	٥	or	я	12	ล	7	a	33
Boalp	2	•taph	2	n.	a	97	• a	å	staph	a_	•u	2	74	88	90	Coryn.Pat A
fer	a	e taph	etaph	ur	e taph	ataph	• taph	H	s taph	ot aph	Aot.albue Aot.flawus staph	etaph	2	ā	Coryn, sp.	n
Mo.	Coryn. 3+ Pen. #p. staph	doryn.sp.	Clado- sportum staph	staph	ens. Pen. ep. steph	ens. etsph	Coryn. 3. Coryn. 8p.	Corymaps Aspergasp. staph	eteph	Coryn. P Asperg.sp.	Asparg.ep.	• teph	Asparg. sp.	ens.	Acperg.ep.	Soryn. Bp.
Mouth	ä	2	III.	staph	N. edoos	E	Nemophilas irr		Kiso. Act.albus	Noteseria	• taph	N. flava Notemeria	N. sice Netseeria	N. stocs	Kiso.	Noisseria
Throat	Melseeria Miso (1) PPLO, staph	ä	N. sicos perflava Miso.	Neisseria perflava	etaph design	ži.	N. #1004	2	Mao.	ä	N. Floos Miso.	ž	N. sicos Naisseria Perflava	N. alcoa Miso. PPLO	Nelseerla perfleva	Y. ec.
AXLIIA	Soryn. 3. etaph	Coryn. 3. staph	etarh	etaph	etaph	Coryn. 3.	staph	Coryn. 3+	ataph	Corym. 3.	etaph	etaph	a	ä	Coryn. 3.	ħ
Forearn	3	ä	9.0	• 0	a	a	a	e a	e taph	ne.	ā	2	2	• •	a	2
Umbilitous	D.	etaph	ā	a	2	ne	1	2	steph	3	a a	no	•a	a d	2	a
0.estn	ųdeje	Coryn. 3. staph	Coryn. Be Caph	Coryn, Se taph	etaph	Corya. Se	Oaffign staph	staph	Coryn. 30 Caffiya staph	etaph	H. sloos staph	daffice Act.albus taph	a	2	Caryin. P dafficya	Coryn. Br
Olane penie	goryn. 8.	udess	et sph	a teph	Coryn, 8. Staph	Conyn. Stagh	Oaffkys etaph	taph	Coryn.Pat A staph Jaffings staph		Osfficy. etaph	Oaffigs staph	a	Corym. 3+	2	Coryn, 8.
Anal fold	2	7710,staph ns Coryn. 8	'n	ā	9.0	2	91	2	• taph	•u	90	2	93	sa a	2	Coryn. 3
7eoee(2)	lasto	E. cold Lacto	E. cell Foly B-NS f Coryn. P	Aerobeater	Asmbacter Asrobacter E. coll, Poly P. B. Not.	100 to	•	E. cold.	M. coli Foly B Karr etaph	E. coll.	E. ooli toryn. 3	Aerobatter E. coll E. coll Latto FPLO Coryn. S	\top	Aerobacter :	3	2
Toes	2	etash Corynespe	ne ne	3		2	a	2	staph	2	2	a	2	ea a	2	staph
(1) Magalla (2) 10-8 low	neoue - Large est dilution	eren poett	t endodd ext	resembling s	(1) Migallansous - Large gran positive coccue resembling sarcina microscopically but with a very shing gray stringy colonial morphology.	ecopically (out with 1.1	very shiry (irey strings	oolonial az	rphology.					

TABLE 36 --- Continued

-	and itemsteen teachers and itemsteen	THE PROPERTY OF THE PARTY OF THE PARTY.		Wites to designar to the passessor.	***************************************	**************************	***************************************		***************************************	-	10000000000000000000000000000000000000	***************************************	***************************************		***************************************	****
								Sampling Period	Pertod							
Sody Area	-	~	^		u	ŋ	1	©	٥	Q.	ส	я	ກ	7	15	16
Soaly	2	*CAP		l	2	577	Da .				\$2	2		pu	2	e teph
ZAF	• Caph		s two	Coryn. S	*taph	ntaph ntaph	staph	etą;n		4.	e taph	q.d.	ı	ic	2	#
rys.	gr.	e ce bu	54				•	2	e Caph	2	2	3	a	a	ē	E. 6011, FOLY A. O111: BL O127: BB 076: BG
No se	Coryn. 5. fen. sp. staph		Coryn.Pat A stuph staph		4.4	e taph	ataph	H Caus	Coryn. 3. Blaph	staph		at 4ph	-	N. 85cos	F	Coryn.Pat A Clado- sporum
Nouth	Sas. Nelegeria	Fat. 5-C. lacto C.albicans	Helanorla	C.alticans nr		Hemophi lus	Lacto miso. Nelsaeria				Netageria	C.albicans Heissoria	 	lacto Nelementa	2	Natamerie Natamerie
Throat	lasto	Lasto Keismeria	.71	240		rria Ioans		oria	inashi in	3	L.		coryn.Pat3		N. flava Misc. Meisseria	Neheseria
4x1114	e taph	Coryn. D staph	Corym. II . staph	Ptaph	F . C	uter	uda; e	etath etath	İ	Ė	Corym. II	a toph	17.	. i. i.	ent. Coryn. 3	Coryn. B
Yorearn	572	•taph	na	2		ŧ.	2.0	911	ataph		=	u.	-	20	2	• taph
Umbilious		Coryn. 3+ etaph	•11			• c			ent. steph	3 2	2	•	P.	2	8 (1	etaph Coryn. 3. Act.albus
Oroin			Coryn. S+ #taph	ų da	!					_		Coryn, 3.	Act. albus	Corym. 3•	Coryn. 3.	Caryn. 3•
Olana penie	Coryn, 3.	Coryn. 3+ staph	staph	n	Coryn. 3. taph	Agt.albus staph	Coryn. 3: etaph	Coryn, 30 staph	coryn. 3. staph,ens.	ens. etaph	Coryn, 5. staph	ייי	งะ	nr	•112·	Corm. 3.
Anal fold	TA®	E. coli Alk,disper Miso.	eu.	a u		R.II	gu g	en I	Coryn, 3* staph F, col1 Alk,dispar	9 E	•	9 ti	2	118	et:	K. coll ataph Coryn. S.
	K. coll Coryn. 3	E.coll, Poly E. coll 9 0124, 117 0126, 116 1.co		E. colt Foly B Olzeina	K.coli, Piy 1 Ulzyibû 0261B6 Pby B0861B7 01241117 01261B16	K.coli,Jol; 026: BGFoly 026: BGFoly 0 06: BT 0121:: IIT 0126: IIT	75.	E, coll Poly B Olzki Bl7 Olzéi Bl6		Aerobedter &. doli		E.collinly ('11181 0127188 Coeffichely R 01261816 Aerobacter	Aerobacter E. coli Lacto	Aerobacter m	#	n•
Tode	2	Te rente. staph	2	2	2	23	D.	n.	ı	D.		- d	P.G.	22	2	f. mnta. staph
ePatturn fl-0 ae10°0 loves	epathyro 3-0 - Shigella-coli selO ⁻⁰ luvest dilution of feces plated seeMisor large gram positive ouccus resembling saroins microscopically but with a very shiny, grey, stringy colonial morphology.	colt f feces plat tive coccus	ed resembling	earoine mic	roscuptost ly	but with a	very ending	', grey, etc.	ingy colonia	d morpholog	÷					

Subject 32

				2000 1000 1000 1000 1000 1000 1000 1000		***************************************		Despiter Period	Period	of actives resident acts de		***************************************			***************************************	
Body Area	7	~	r	7	S	9	1	8	,	707	17	3	α	77	15	316
South	a	Coryn. sp.	7.9	gu	25	an an an an an an an an an an an an an a		n.s	Staph Coryn.Pat A	e c	8.5	4	E C	กล	2 2	staph
Pr.	Coryn. 3. Cand. ep. Staph	Cand. ep • teph	Sand op.	Carri. ep.	3	Cand. ep.	-Caph	et Aph	1	a tagh	"Laph	nr	nr	ā	N.	TU.
27.0	*0	nr	13	121		P.8	na na na na na na na na na na na na na n	7.6	*Caph	=	ř	2	ЛS	à	ı.	staph
Kopa	Coryn. 3.	Coryn. 3. Clebegorke staph, ens.	staph	et aph	Coryn. P	Rtaph		Coryn. P	ataph	• taph	ataph	ataph ataph	coryn. F	Corym. W.	Coryn. P	1 1
Houth	DA 0.	71	Halenaria	5	staph	Melenerie	140to	à	Notaberia	N. stoca	ş	i i	N. sicos	lacto Meineerin	ż	Bec. Neterta
Throat	Now	#	Act. albun	9. 4 .ph	Act.albue	atath	Metaeria Metaeria	<u> </u>	H. Sleca staph		No. Leagure	N. flava	N. sloca	2	N. Bloca N. flava	Selephria
ANILLA	12 2 E	rtaph	ataph ataph	at açıb	daffkya atajih	- Capa	e taph	• taph	a tapi	Partkyn et aph	Coryn, S Frank	Carriers a Laph	Corym. 3	Corym. 3	n	Coryn. 3
Foresta		11	Na.	FLA	ì	1	24	7.5	ataph ataph	7.	613	r.a	100	ŧu	•	ataph
Unbillous	2	14	7.5		7	24	61	Г		⊢	\$	ec ec	13	20	e e	* Caph
ureno	Caffkys Laph	Soryn.Path Coryn. 5.	Coryn. 3:	Ī	Corym. 3+	Caryn. 3.	1 cp 1	4654	CAP)I	 -	Coryn. 3	Oafficya •taph	N# 0 .	J.	ī	ŧ
Olans penis	Oaf fkys staph	Orffrya ens.	ens.	Coryn. 3. Oarfiya ateld	at Aph	Coryn. 5 Coryn. sp.	uters.	ans. Jarfkya ataph	* Calif	Oaffkyn ataph	Coryn. 3 staph	Onffkyr	Coryn. #p.	nt.	5	2
Anal fold	29	Coryn. Patsi ne staph	5.4 5.4	7.		# C			stept.	9.0	th.	2	2	88	919	staph Corym.Pat F
THE SHARESTEEN STREET	K. coll Goryn. 5 Goryn.ep. FPLO, Lacto	", gall Frio	K. doll Pat. 3-C	%, dell	R. coll Pat. D-C Coryn. F one.	K. wali fat. 3-c kato	E. salt 7-st. 3-c 7-st. 7-st. 4-sph	g, coll	E, col.1 .41, 5-6	E. volt	E. coll Pat. 5-C PPLO	2013 2017 A 0127 BB 4317 A 0125 915	K. coli E. coli Poly D	%, coli Pat. 5-C	84	3
##O#	7.8	E. cull Coryn. sp. staph	4	g I	10 A	ż	ŧ	2	ateph	ā	-	a c	**	na	ns	coryn.ep. etajh Coryn. 3.
* 10-6 10V	** 10-6 lowert dilution of from plated	of feems pla	Lord													

TABLE 36 --- Continued

						Subject 33	ž,					
						Sampling Period	Period					
Body Area	7	*		-3	2	٥	7	6	6	a	ជ	я
Roale	2	etten	2	2	8 12	2	2	8 11	ųdes e	ŧ	e d	Coryn. B Coryn. Pat. A staph
	2	ngere ngere	70	90	22	1.0	•	1 C	eteph	e	2	Coryn. P Coryn. Pat. A staph
K.X	3	Coryn, Pat. A	2	7	2	2	90	e c	etaph	e u		e taph
X084	deryn. P	ens. (A)	Coryn. S	Mad. etaph	Caryn.	-	Coryn.	Coryn. P	•taph	Corym. 5 steph	at. A	Coryn, F steph
Oingirel	Coryn. X	ž	Coryn. Pat. A	2	Coryn. Pat. A	Altie, saliv	ŧ	ł	Sarchia saliv, mitia	2	faroine saliv	Calfrys mitis
threat	Corpa. P	Keisseria	OALLY, MI CLO	a	ealsy, vitte etaph	76			Oafflys sally nitts	saliv mitis staph,ost.	Ouffrye sate ouffre K. sicos, saliv mitis, saliv mitis, stoph staph	Onfficya mitta, saliv staph
AKILLA	Coryn. Pat. A	otaph	qde 10	Corym, Pat. A	Coryn. Pat. B	Coryn, Fat. A staph	Corym. Pat. A staph	a taph	Barolna etaph	e teph	e teph	staph
Yoresia	2	Coryn. F	2	95	\$ 0	94	2	2		ยน	eu.	etaph
theb Likous	2	Coryne Pate A etaph	90	2	Na Pa	2	2	ž		e u		Coryn, 8 Pat, A & B steph
Oroin	Coryn. 8 staph	Curyn, X staph	Corym. B & X	Coryn, Pat. A	Coryn. Fat. Al	Corym, 3 Pat. A, etaph	Coryn. 3 staph	etuph	etephicoryn.s Fat. A & B	Coryn, 3 Pat. A, staph	Coryn. 5 Pat.B, staph	Coryn.Fat. A
Olane penie	Coryn. Pat. A	Coryn. P	Coryn. Pat. A	Carym. Pat. A	Corym. Pat. A eteph		Coryn, Y Pat, Ni, staph	Coryn. 3 staph	Carin, B stap.	Coryn. X Pat.A, staph	_	Coryn, 3 Pat. A, etaph
Anal fold	Corym. B Fat. Bl staph	Coryn. 3 4 K eteph	corm. 5 stayh	Coryn, Pat. A Pat. Al & B etaph	coryn, Pate A Pet. Bj etaph	Coryn, Fat, A Pat, Bl & B3 staph	etaph	Coryn 3,P & X staph	staph	Coryn. Pat. A	corye, Pate B staph	Coryn, 3 & Fat, 8 staph
7000	E.coll, Foly A & B, NT Asrobacter antero, E.coll	E, uoli entero mitie	E. coli Poly A, NYT entero	E. coli Poly A, MT	E. goll Poly A, WT entero	E, soll Poly A, NPT entero	E. soll Poly A, NY entero, ealty	K. doli entero	K. coll Poly A. HT entero, mitte	E. coll		", uoli Poly A, MT Melit, entero
Toes	etaph	etaph	าบ	ataph	IN.	Coryn. Pat. A staph	Caryn. P Stuph	Colyn. Pets A	Coryn. 3 staph	Carya. 3 Caph	Coryn. Pat. A staph	Cerym, Pat. A staph
(R) * Thise p	(A) \star this pattern weam to be bicohamically related to 0.	be bicohemically	y related to C.	ensymboums alth	hough the action	ensymicum; although the action on nitrate is sheent	absent					

			1	_	Γ					_		_			
	12	• taph	Coryn. Pat. A	1	staph	Corym. Bp. Corym. Pat. B rutie	Dec. seliv Altie	Coryn, Pat, A Coryn, 3 staph	Coryn 5. Coryn, Pat, Bl staph	Coryn. P etaph	Coryer Pats A Pats B & Bl	Coryn, Pat. A Coryn, P & Pat.B steph	Coryns 3 Staph	Z. goli /ol; 3, NFT entero saliv	Coryn, Pat. B Flaph
	π	eu	00	ne ne	atesa	ritio ealiv entero	Oaffkyn Claph	Carym, S etaph	9 0	2	ł.	staph	step:	K, coli Poly 1, Nr mally	Saroina etaph
	οτ	7.	• • •	2	et aph	Coryn, Pats A saliy nitis	98117	Corym, Pat. A etaph	.	94	Coryn, Pat. A Pat. B staph	Coryn, P eteph	etaph	H. goli Amedanter Balky entero	etaph
	٥	etaph	Corym. Pat. A	• (4ph	Joryn, Pat. A etaph	Noleseria salky nitio	Osificya sality nitis, staph	coryn. S ttyh	yd er	eteph	•taph	Corpu. Pat. A Corpu. Pat. Bl Corpu. Pat. Bl, staph Pat. Bl, staph staph	Coryn. 3 Pat. Al Stayh	f. poli saliv entero	staph
	9	22	2	ne	coryn P •teph	800. 8013Y Altin	Daos, Mitia N. Biographia	Coryn, Pat. 22 stapli	2	75 10	Corym. B Corym. Pat. Bl Ataphyens. (R)	Corym, Pat, A Pat, Bl, staph	coryn. 1 Fat. 1 etaph	% coli entero eniiv	Coryn, Pat. A steph steph
Period	1	ou.	2		coryn. 3 4 P	nitis nitis etaph	•a13.v	etaph	90	e c	coryn. staph	Joryn. 8 eteph	Joryn. B etaph	%, colis mality entero	Coryn, Mat. A ataph
Marphine Period	9	2	94	•	Coryn, "	coryn, Pat. Bu saliv ritis, staph	90)1V	Bao. etaph	9	90	9	- 6	Coryn. Bat. A Soryn. Pat. A stalin	1, 6011 Poly B 0126/816 ##11V entero	Jorys. Pat. A staph
	\$	2	2	2	•1 - ph	Deroina Jorym, Pated mitte, staph	Saroina esiáv	7m. 8p. 41 7m. 7at. 41 1. 4, etaph	•	ů.	Coryn. 3 Coryn. Pat. Blataph staph	doryn, S Pat.Al, etsph	•tsph	E. 5011 Foly B 0126/316 84117 Altie	2
	-7	2	2	2	staph Pate A	BEO., MILLO	77 7	Coryn. S	8 C	9 U	Coryn. 3 Joryn. Pat. Al.	Caryn, 3 staph	Corym. 3 Corym. Pat. A atelih	s.	Corym. X staph
***************************************	ſ	2	-	20	, <u>5</u>	Noine-ria saliy		Coryn,fal. A staph	e	2	Coryn, Pat. A etaph	Onryn, X Fat, A	Coryn. 3 Coryn. Pat. A ethnh	E. coli entero maliv	21.
	3	Coryn. Pat. A etaph		nca).	Jarya. Pat. A staph	뉟	valav	Sarya. 8	etaph	3	Coryn. A Coryn. Pat. B etaph	Coryn, Pat. A staph	coryn. 3 steph	Ze ooli Agrobioter entero entiv	staph
***************************************		23	2	2.0	Coryr. P	nisia	Note seria esisy Atto	Coryn. Pat. A	Ž	2	Coryn. ep. Pat. A & B etaph	doryn. X staph	Coryn. S etaph	2. coll	oteph
	Andy Area	Вовлр	i i	- 2.2	100	Oingirel	Throat	AKILLA	Yorakin	Crbilione	Ores.	dlane pente	Anal fold	Jeoss	-to-

- manuspupapapapapapapa	Mandemannian Manual	व्यान्त्रक नेतामाव्याम स्थ क्ष्माव्यक्तय ह्यात् व्याप्त का ह्याक्ष्माक्ष्माक्ष्मा हिनाहरू	приментинения в простави	myzosaannykykinnisozate	нини пимиристи те топории	annual ma	auguspandibessants as ax eft a tea.	III K BRITISK KOTO GRADI HARID	energanisma apparatement	THE CHANGE OF THE PROPERTY OF	D THERMOODERS OF THE PROPERTY OF	
) Å (IIII) ER REPRESENTATION (FEBRUARE)	Photos of a suspense of a suspense of	Je z manama d	which is		The second	L	H	ndanamananan maa			
Hody Area	-4	~	_	-3	×	•	, ma ton mora i in		9 	No.	7.7	7.7
Sealp	2			-	-		2	=		5	3	stepti
l'ar	2	attaph		AN AN	7.1	2					1	T.T.
**	2	**************************************		1) N	1.1							n Calph
None	Coryn-Pat. A	 -	Laple	#4.4 4		7.1.3	1	Colyne Prime in a			! 	Sultaro staph
Jane 1 val	n the	Melaineria Bally	4	<u> </u>	7.1. A.1		415.5		* 775		ret. 3	ontero, staph
Throat throat	#411.V	714 + 714 +	41.1.2	12.12.12.12.12.12.12.12.12.12.12.12.12.1	21.12 e5.41.0	Salraela ealka enturo			Fat. A cat. nutero	oat. paliv nitin	Ailt Mith	Carrys N. sloce salivanita steph
441114	staph	14 m	Soryn. Fat. A	taph 5	1 2	and and and and and and and and and and	*Caph	νι. Β1		# Lapla	Corpn. Pat. Bl	ddata dd 198
Yoream	N	at at the	N	NA NA	78	#U			at with			a capta
(hb) Lloue	7.8 ************************************	Corpn. Pat. A	**************************************		= -	7.		911	-2	4 = 1		ışder, a
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Olans penis	Coryn. X	Cor As. Fat. A	Z T	1.22	Soryn, Pat. A.	Coryn. Fit. A	£.		н	etaph	ตริสมาท	Coryn. P et ajd
Anal fold	Joryn. B	Joryn S Etalyh	Yet Steam	Caryn. J Fat. Al 4 Bl	Joryn, B Fat. Al, Maph	Joryn, 8 Garyn, 8 Coryn, 1 Pate Algebrath Fath	-	coryn. S Pat. Al, staph	ataph	Coryn. 3 Fat. A, Reaph	Coryn, Pet. B steph	Coryn, Pate A Rigin
* * * * * * * * * * * * * * * * * * * *	roly A, EFT entero		Antaro har	Arrobacter entero		7. X.	antero	iter		L. coll. Joryn stapb	K. ools coly as HPT entero sulty	E. coll Coryn. S entaro
# # 0 # 1	corys. Pet.	coryn. Pet. DZ Coryn. Fet. n staph	COTYN. TAT. A	Pate A, MASh	Solym. F	The same	27	- Life's a	# Lapki	Soryn, Pat, III Blayn	12471	e caph
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Ford II			at and the service see that the servic			taryn. A	- Colone	- Idese	Joryna A Corym A	Sorys. A	Cat. A, atamh	rate by staph

no recovery	no sample	C. pseudodiphtheriticum	Candida parapsilopsis	pattern	Pentoillium	pleuropneumonia-like organisms	proactinomyces	Rhodotorula	C. striatum	saline positive	Streptococcus salivarius	Scopulariopsis	Syncephalostrum	N. sicea	species	species (plural)	staphylococcus	Trichosporum	Trycophyton mentagrophytes	Trycophyton rubrum	C. xerosis
11	H	Ħ	#	ŧ	11	15	Ð	11	II	II	#	11	II	II	11	II	II	11	II	11	II
HZ	NS	P4	per,	pet	Pen	Olgg	proact	Rhodo	Ø	- R83 +	saliv	Scop.	Synceph	sicea	ďg	q; 4	staph	Trich	T. menta	T. rubrum	> 4
actinomycetes	Alkalescens dispar	Aspergillis	Bacillus	Streptococcus bovis	candida	N. catarrhalis	Corynebacterium	Streptococcus durans	enterococcus	Corynebacterium enzymicum	Streptococcus faecalis	gram positive rod	Helminthosporum	Streptococcus lactis	lactobacillus	micrococcus	Streptococcus mitis	mycobacterium	mycococcus	Neisseria	no further type
11	11	11	II	#	11	11	11	H	H	II	II	11	11	11	II	II	ij	IJ	IJ	II	II
Act	Alk, dispar	Asp.	Bac,	bovia	cand.	cat.	coryne	durans	entero	enz	faecalis	G + R	Helminth.	lactis	lacto	mic	mitis	mycobact	mycoc	z	NFT

TABLE 37. PHYSIOLOGICAL CHARACTERISTICS OF THE PREDOMINATING FECAL ANAEROBES***

	Folic Acid	+	×	+	+	0	0	0	
ins	P.A ,	+	×	+		1	+	0	
Vitamins	NiasiN	ı	×	ı	0	ı	0	0	
Λ	B2	0	×	0	+	+	0	0	
	B ₁₂	+	×	+	+	+	+	0	
	Gas From esocuiti	202				CO2H2		•	,
	% Lactic Acid/Wt. Glucose	20	37	19	nseq	os.	21	40	
ion	9ninigr A	+	0	+	£	+	+	+	
Decarboxylation	Tyrosine	+	0	+	÷	+	0	0	
rpox	Histidine	+	O	+	(±)	+	0	0	
Deca	Lysine	+	×	+	(+	0	0	
•	Deaminatio % Substrate Converted WH ₃	12	81	28	N	ત્ય	თ	83	
	pH Broth*	6.7 4.90	6.5 6.5	7.2 4.65	86.1	5.3	6.7 4.65	6.8 4.62	
	Agar Shake	very anaerobic	very anaerobic	very an- aerobic with slight gas	very an- aerobic heavy gas	very an- aerobic heavy gas	very an- aerobic heavy gas	anaerobic collar	
	Morphology	very amall gram positive rods in chains, bipolar, slightly pointed	FA-11 short medium gram posi- tive rods	FA-12 tiny pointed gram positive rods, chains, coccoid	small gram negative cocci in masses	*#A-14 gram negative rods long slender with gram post-tive areas	F'A-15 short fat gram negative rod, pointed ends	gram positive pleamorphic rods, tadpole	
	Type Culture	FA-10	FA-11	FA-12	FA-13	**A-14	F'A-15	FA-16	

* Top number pH = 1/10% glucose heavily buffered
Bottom = 5/10% glucose not buffered
* Fixes nitrogen

** Results obtained under NASA contract NASw-738, "Study of the Normal Fecal Bacterial Flora of Man".

X = Test not done()= Questionable results due to gas formationby culture

Agar Bro Shake Bro Ford anaerobic 4. ated very 6. ated very 6. anaerobic 4. beavy gas very 5. re rod anaerobic 4. m very 6. anaerobic 4. anaerobic 4. anaerobic 6. anaerobic 4. ositive very 6. anaerobic 4. lender very 6. anaerobic 4.											
Morphology Agar DH Decarboxylation Dec	¥	Folic Acid	+	+	0	×	+	+	+	+	+
Morphology Agar DH Decarboxylation Dec	n8**	.A.4	+	+	ı	×	1	0	+	+	,
Morphology Agar DH Decarboxylation Dec	tam∄		0	0	0	×	0	C	ı	0	,
Morphology Agar PH Ph Ph Ph Ph Ph Ph Ph	Vi		0	ı	0	×	+	0	0	0	1
Agar Morphology Shake Broth* Decarboxylation Slender gram positive rod anaerobic 4.6 Short medium gram positive rod anaerobic 4.55 short medium gram negative medium very cod, clusters small gram negative slender wery cod, clusters anaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.55 short medium gram negative manaerobic 4.85 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaerobic 6.8 manaero		B ₁₂	+	+	+	×	+	+	+	+	+
Slender gram positive rod anaerobic gram negative slender rod, bilopiar negative slender rod, slightly curved the rod, slightly curved the rod, slightly curved the rod, slightly curved the rod, slightly curved the rod, slightly curved the rod, slightly curved the rod, slightly curved the rod, slightly curved the rod, slightly curved the rod, chains anaerobic the rod, slightly curved the rod, slightly curved the rod, chains anaerobic the rod, slightly curved the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains anaerobic the rod, chains the rod the ro					co						
Agar pH and a shader gram positive rod shoked, chalks are rod, blooked, chalks are rod, an aerobic		Acid/Wt.	Ŝ.	56	63	38	40	63	28	28	26
Agar pH and a shader gram positive rod shoked, chalks are rod, blooked, chalks are rod, an aerobic	## Hon	əniniyaA	+	+	+	0	0	0	+	0	+
Agar pH and a shader gram positive rod shoked, chalks are rod, blooked, chalks are rod, an aerobic	xyla	Туговіле	+	0	+	0	0	0	+	+	+
Agar pH and a shader gram positive rod shoked, chalks are rod, blooked, chalks are rod, an aerobic	arb	9 nibit aiH	+	0	+	0	0	0	+	+	+
Agar pH early an anaerobic 4.6 slender gram positive rod anaerobic 4.6 slender gram positive rod anaerobic 4.6 slender gram positive rod anaerobic 4.6 slender gram positive rod anaerobic 4.5 short medium gram positive rod, clusters anaerobic 4.5 slender rod, bipolar anaerobic 4.85 thy gram negative slender very 6.6 slender rod, bipolar anaerobic 4.85 thy gram negative slender very 6.9 slender rod, bipolar anaerobic 4.85 thy gram negative slender very 6.9 slender rod, bipolar anaerobic 4.85 thy gram negative slender very 6.9 slender rod, bipolar anaerobic 4.85 thooked, chains anaerobic 4.85	Dec		0	0	+	0	0	0	0	0	+
Agar Morphology slender gram positive rod Slender gram positive rod, tadpole gram negative elongated serobic heavy gas very anaerobic short medium gram posi- gram positive medium rods, clusters small gram negative siender rod, bipolar thy gram negative slender rod, slightly curved pleomorphic gram positive rod, chains anaerobic very very very very anaerobic very very very anaerobic pleomorphic gram positive very very very snanerobic rod, slightly curved pleomorphic gram positive very very very very anaerobic		% Substrate Converted to	13	87 V	9	83 V	Ø	83 V	12	23	16
Morphology slender gram positive rod Slender gram positive rod, tadpole gram negative elongated pointed rods in pairs short medium gram positive tive rod, clusters gram positive medium rods, clusters small gram negative slender rod, bipolar tiny gram negative slender rod, slightly curved pleomorphic gram positive rod, hooked, chains		pH Broth*	I								7.0
		Agar Shake	very anaerobic	very anaerobic	veryan- aerobic heavy gas	very anaerobic	very anaerobic	very anaerobic	very anaerobic	very anaerobic	very anaerobic
Type Culture FA-1 FA-2 FA-4 FA-5 FA-6 FA-6 FA-6 FA-9			slender gram positive rod	Slender gram positive rod, tadpole		slender gram positive rod	short medium gram posi- tive rod, clusters	gram positive medium rods, clusters	small gram negative slender rod, bipolar	tiny gram negative slender rod, slightly curved	pleomorphic gram positive rod, hooked, chains
		Type Culture	FA-1	FA-2	FA ***	FA-4	FA-5	FA-6	FA-7	FA-8	FA-9

* Top number pH = 1/10% glucose heavily buffered
Bottom = 5/10% glucose not buffered
** Produces indol

X Test not done
*** + = activity or production
- = utilization
0 = no reaction

TABLE 38. LIPASE PRODUCTION BY ANAEROBIC TYPE CULTURES*

Type Cuiture	Spirit Blue Agar Shake	Type Culture	Spirit Blue Agar Shake
FA-1	-	FA-10	-
FA-2	+	FA-11	+
FA-3	_	FA-12	-
FA-4	+	FA-13	-
FA-5	+	FA-14	-
FA-6	_	FA-15	+
FA-7	_	FA-16	+
FA-8	_	Control	+
FA-9	_	(lipase enzyme)	
		Uninoculated Control	-

Blue color = positive

^{*} Results obtained under NASA contract NASw-738, "Study of the Normal Fecal Bacterial Flora of Man".

TABLE 39. B VITAMIN PRODUCTION OR USE BY THE TYPE CULTURES*

Type Culture	Vitamin B-12 m#/cc	Riboflavin µ/cc	Niacin µ/cc	Pantothenic Acid µ/cc	Folic Acid m μ/cc
FA-1	0.288	0.096	3.1	0.37	35.0
FA-2	0, 237	0.078	3.6	0.37	14.5
FA-3	0. 125	0.099	3.0	0.0463	10.0
FA-5	0.262	0.102	3.2	0.0814	15.5
FA-6	0.263	0.093	3.35	0.243	16.5
FA-7	0.262	0.093	2.65	0.393	25.0
FA-8	0.225	0.087	3.60	0.532	14.5
FA-9	0.362	0.078	2.45	0.208	15.5
FA-10	0.400	0.084	2.74	0.301	25.0
FA-12	0.325	0.090	2.65	0.359	17.0
FA-13	0.300	0.111	3.10	0.0116	35.0
FA-14	0.200	0.114	2.50	0.0231	11.0
FA-15	0. 255	0.096	3.40	0.301	10.0
FA-16	0.0953	0.093	3.6	0.254	10.5
Control	0.084	0.084	3.6	0.254	10.0

^{*}Results obtained under NASA contract NASw-738, "Study of the Normal Fecal Bacterial Flora of Man".

TABLE 40. OPTIMAL TEMPERATURE AND pH RANGE FOR GROWTH OF EIGHTEEN ANAEROBIC TYPE CULTURES**

Anaerobic Type	5.0	6.6	7.5	R. T.	37.5°C	45°C
FA-1	-	+	~	-	+	-
FA-2	-	+	-	-	+	-
FA-3	~	+	-	-	+	-
FA-4	-	+	-	-	+	-
FA-5	-	+	-	-	+	_
FA-6	-	÷	-	-	+	-
FA-7	-	+		-	+	-
FA-8	-	+	-	-	+	-
FA-9	~	+	-	-	+	-
FA-10	-	+	-	-	+	-
FA-11	-	+	-		+	-
FA-12	-	+	-	-	+	-
FA-13	-	+	-		+	~
FA-14		+	-	+ sl no gas	+ hy gas	+ hy no gas*
FA-15	-	+	~	-	+	8
FA-16	-	+		-	+	-

R. T. = room temperature

sl = slight

+ = growth

hy = heavy

- = no growth

^{*}FA-14 failed to grow at $50-52^{\circ}C$

^{**}Results obtained under NASA contract NASw-738,

[&]quot;Study of the Normal Fecal Bacterial Flora of Man".

TABLE 41, PHYSIOLOGICAL CHARACTERISTICS OF TYPE CULTURES*

				Dec	Decarboxylation	xylat	ion
				эт	əuib	əuis	əuji
	Type Culture	% Lactic Acid/ Wt. Glucose	% Substrate Converted to NH ₃	Lysir	itsiH	Tyres	nigrA
Lactic Acid Forming	FA-2	26	2	0	0	0	+
Predominating Fecal Anaerobes	FA-4	39	2	0	0	0	0
	FA-5	40	2	0	0	0	0
	FA-11	37	2	×	0	0	0
	FA-16	40	2	0	0	0	+
					•		
Deaminating and Decarboxylating	FA-1	រភ	13	0	÷	+	+
Predominating Fecal Anaerobes	FA-9	26	16	+	+	+	+
	FA-10	20	12	+	+	+	÷
	FA-12	19	28	+	+	+	+
	FA-7	28	12	0	+	+	÷
	FA ~8	28	23	0	+	+	0
				• -			
Miscellaneous	FA-3	6	9	+	+	+	+
Predominating Fecal Anaerobes	FA-6	6	2	0	0	0	0
	FA-13	Used	2	ŧ	ŧ	Ŧ	Ŧ
	FA-14	6	2	+	+	+	÷
	FA-15	21	6	0	0	0	+

Questionable results due to gas formation by culture
 Test not done
 Results obtained under NASA contract NASw-738, "Study of the Normal Fecal Bacterial Flora of Man."

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TABLE 42, COLONY COUNTS - AEROBIC DILUTION POUR PLATES FROM FECES

	14				
	13				
	12				
	11	80		ဧ	
	10	10	45	9	120
	6	20	8	41	70
	æ	42	83	32	88
eriod	7	œ	21	18	48
Sampling Period	9	45	59	128	တ
SS	5	32	120	110	500
	4	က	10	54	200
	က	18	155	ဇ	150
Security for the street	2	20	150	140	180
		4	>250	190	200
Subject	Number	17	18	19	20

These numbers are equivalent to 10 -6 hacteria per gram of feces

NG = No growth NS = No sample These numbers are equivalent to 10 ⁶ bacteria per gram of feces

TABLE 42 --- Continued

	14	7	5 0	166 130	10
2007 PRODUCTIONS STREET, SQUARE, STREET, SQUARE, SQUAR	1.3	9 4	८) स	7.11 5.6	15 16
	12	2		306 228	4 o
	11	17 13	0 1	152 129	41
	10	ਚਾ ਚਾ	ਜਜ	140 175	84 44
	6	0.4	1 4	308 320	45 54
	80	4.tt	ព	70	70
Period	2	нн	10	1600 1120	111
Sampling Period	9	01-1	н оз	520 360	33
	2		80 CJ	270 206	54 230
	4	ଷଠ	нн	432	50 66
	က	нн	ro 44	360 550	
	23	0 1	11	156 80	28
	H	ର ଚ	2 11	8 23	ਜਜ
Subject	Number	25	26	27	28

These numbers are equivalent to 10⁻⁶ bacteria per gram of feces

	14	4 2	တယ	44	ri ri
	13	10	40 25	11	1
	12	818	14	£ 4	29 37
	11	22 14	22 31	12 4 230	14
	10	ભ ભ	S 10	7 16	71 93
	c.	4 03	9 20	18 22	18 3
	æ	8 74	168 225	26 44	24
Period	7	41 33	N N N N N N N N N N N N N N N N N N N	99 132	111
Sampling Period	9	40 25	122 99	800 720	102
Sar	S.	4 0	17	192 241	14
	4	55 66	234 148	185 213	117
	ဗ	12 34	10	20 37	23
	2	01 60	<i>m</i> 04	40	ဝ၈
**************************************	-	00	01 01	4-1	t- 00
Subject	Number	29	30	31	32

NS = No sample These numbers are equivalent to 10^{-6} batteria per gram of feces

	12	2.9 33	1.40 1.04	26 18	7.1
	11	28	22 18	49 48	218 250
	10	67 26	36 32	7.	288 242
	6	87 160	80 64	S S S S	344 288
	8	25	14 22	29 16	276 294
	۲	23	80 56	13 16	110 191
Period	9	119	79 52	22 23	191 213
Sampling Period	က	16 10	43 28	20 11	103 90
Sar	4	14 17	960 676	684 151	692 980
	ဗ	16 12	7 10	ro 03	63 48
	2	22	300 360	76 81	545 800
	-	11 6	342 374	73 75	310 286
The details where we park the desire and the second	Extra	63 78	270 181	40 81	219 360
Subject	Number	33	£	35	36

These numbers are equivalent to 10⁻⁶ bacteria per gram of feces

TABLE 43. GROWTH HEIGHT BY TUBE NUMBER

ANAEROBIC FECES

EXPERIMENT V

						Saı	npling	Sampling Period						
	1	83	အ	4	5	9	7	80	6	10	11	12	13	14
Subject Number					_	-								
17	0 0	10	10	10	∞	10	œ	œ	10	-	8	-		
18	œ	œ	10	10	10	6	10	80	10	10				
19	∞	10	10	10	2	တ	œ	80	10	2	æ	-		
20	σο	2	10	10	10	œ	10	10	10	10				
							_						-	

ANAEROBIC THROAT

						San	Sampling Period	Period						
	H	2	3	4	ů	9	7	æ	6	10	11	12	13	14
Subject Number														
17	2	9	9	ເດ	9	သ	သ	9	2	ಬ	မှ	2	9	
18	9	ນ	4	ß	9	9	9	2	9	വ	4,	2	4	
19	2	9	9	4	က	4	ro	9	2	5	ເດ	7	ည	
20	7	က	က	ည	6	2	9	9	9	9	9	7	ည	

 $4 = 10^{-7}$; $5 = 10^{-8}$, etc.

TABLE 43 --- Continued EXPERIMENT VI

		14			n	Ç	7	<u>-</u>	10
		13		٥	0	σ	> ;	10	6
		12		0	-	σ	•	0 0	N.S.
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		10		o.	,	10	•	n	တ
	eriod	6		2	,	10		_ }	တ
	Sampling Period	œ		ത		10	-	>	Z.
FLCES	Samp	2		6		හ	σ	>	တ
ROBIC		9		6	,	∞	10	>	10
ANAEROBIC FECES		5		10	1	10	10) I	₋
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		က		ာ	•) 	6		တ
		2		10	•	?	10	,	10
		1		თ 	c	D	10		10
		Subject Number	***	77.	66	3	23	6	7.7

ANAEROBIC THROAT

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Sampling Period	10		ဖ		~	9	7	•
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	7		2	ŧ		8	9	
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	5		വ	Q	0	9	2	
	4		~	-		2	ιΩ	
	က		9	a	-	9	9	
	23		9	-	•	9	9	
	11		က	ď	>	9	9	L.
	Subject Number	1	21	222	}	83 83	24	**************************************

N. S. = no sample $4 = 10^{-7}$; $5 = 10^{-8}$, etc.

TABLE 43 --- Continued
EXPERIMENT VII
ANAEROBIC FECES

							SS	mpltr	Sampling Period	đ				
Subject Number	1	7	3	4	5	ອ	7	œ	6	10	11	12	13	14
25	10	6	10	2	œ	2	10	ဆ	10	6	œ	80	2	7
56	œ	6	∞	œ	10	œ	œ	တ	10	œ	10	6	œ	တ
27	0 0	G	∞	∞	œ	6.	10	တ	10	œ	တ	10	თ .	6 0
28	œ	6	œ	œ	G	æ	10	æ	10	7	œ	œ	7	8

ANAEROBIC THROAT

	16	4	2	က	က
	15	4	9	ဗ	9
	14	4	4	9	4
	13	L	2	ເດ	က
	12	ຜ	ιΩ	ເບ	4
popre	11	7	2	2	ဗ
Sampling Period	10	3	က	ဗ	5
Samp	თ	9	တ	!	7
	σο	ည	4.	2	2
	2	9	4	က	в
	8	7	7	2	2
	တ	7	~	<u>-</u>	9
	4	2	-	-	2
	3	9	Ω.	<u></u>	9
	2	7	۲-	-	2
		2	: -	9	~
	Subject Number	25	26	27	28

 $=10^{-7}$; $5=10^{-8}$, etc.

TABLE 43 --- Continued

EXPERIMENT VIII

ANAEROBIC FECES

		·			
	14	10	00	œ	œ
	13	10	10	10	10
	1.2	8	10	10	10
	11	8	63	80	6
	10	10	G.	œ	တ
Perfod	6	æ	o o	6	80
Sampling Period	8	6	10	2	10
Samt	7	10	*	۲-	6
	9	10	0 0	10	G.
	9	80	0 0	6 3	о
	4	80	0 0	∞	6
	က	80	6	∞	œ
	2	6	۵	0 0	œ
	1	6	10	10	œ
Subject	Number	29	30	31	32

^{*} Fecal spec. for sampling period (7) not given

ANAEROBIC THROAT

	16	5	41	īO	ည
	15	8	89	۲-	ιD
	14	9	9	ထ	₹¥
	13	Ð	4	ĸ	4
	12	ဥ	ß	æ	4
	11	ည	Ð	80	Ð
	10	ည	Ø	9	50
eriod	6	æ	ထ	ιo	4
Sampling Period	8	9	ιÓ	ŧΩ	9
Sam	7	G G G G	ည		
	9		ŧΘ		
	ထ	ıΩ	ω	4	3
	4	3	4	4	4
	ၓ	5	ιO	IO.	80
	23	õ	က	φ	4
	н	ιO	Ð	89	4
Subject	Number	58	30	31	32

 $4 = 10^{-7}$; $5 = 10^{-8}$, etc.

TABLE 43 --- Concluded

ANAEROBIC FECES EXPERIMENT IX

						រី	112 4 V	EAFERIMEN LA	\$				
Subject						Sampli	ng Pe	riod					
Number	ਭ	1	7	က	490	2 9 0 e 1	9	<i>L</i>	8 90	96 ₆	10	11	12
33	01	10	7	œ	6	10	6	10	10	10	10	10	10
34	10	10	တ	œ	10	10	6	10	6	10	10	10	6
35	10	6	10	∞	10	10	10	G	6	N.S.	10	10	o,
36	10	10	19	∞	6	10	10	∞	6	10	တ	10	10

	4	4	4	4
	4	9	9	ည
	4	S.	9	,,,
	5	ß	4	7
CAT	7	7	7	7
IC THROA'	32	9	ည	ည
EKOB	2	2	ည	9
ANA	ည	9	9	9
	9	ശ	ഹ	4
	2	9	2	7
	9	9	ស	ນ
	2	9	9	2
	33	34	35	36

က	က	က	63
က	4	က	4
ဗ	ည	ည	3
4	ເວ	4	ເນ
က	4	ſΩ	ស
3	ເດ	က	5
က	വ	4	က
4	4	ស	4
ည	ည	4	4
အ	က	3	5
5	ည	な	2
2	ເດ	ຜ	ဥ
33	34	35	36
	5 5 3 4 3 3 3	5 5 3 5 4 3 3 4 3 3 4 2 3 4 2 4 5 5 5 4 5 5 5 4 5 5 5 4 5 5 5 4 5 5 5 5 4 5	5 3 5 4 3 3 4 3 4 5 4 5 4 5 4 5 4 5 5 4 5 5 4 5 5 3 5 5 4 5 5 5 5

 $4 = 10^{-7}$; $5 = 10^{-8}$, etc.

TABLE 44 OCCURRENCE OF STRICT VS FACULTATIVE ANAEROBES IN FECES

EXPERIMENT V

				Subject	Number	•		
Sampling	1	.7	18	8	1	9	20)
Period	A	F	A	F	A	F	A	F
1	3	0	2	0	3	0	1	2
2	4	0	2	3	3	0	0	1
3	1	3	5	1	5	1	2	1
4	2	1	2	0	2	0	2	3
5	1	0	2	0	1	1	1	0
6	1	1	4	0	1	1	3	0
7	5	0	1	1	4	0	5	0
8	1	2	2	1	3	0	3	0
9	3	1	3	0	2	1	3	2
10	3	0	3	1	4	0	2	1
11	4	0	0	0	2	0	0	0

A = Anaerobic F = Facultative

TABLE 44 --- Continued EXPERIMENT VI

				Subject	Number			
Sampling	2	1	2	2	2	3	2	4
Period	A	F	A	F	A	F	A	F
1	3	0	3	0	3	0	3	0
2	3	0	3	0	3	0	3	0
3	3	0	3	0	3	0	3	0
4	3	0	3	0	3	0	3	0
5	3	0	3	0	3	0	3	0
6	3	0	3	0	3	0	3	0
7	3	0	3	0	3	0	3	0
8	3	0	3	0	3	0	N. S.	N.S.
9	2	1	3	0	3	0	A. C.	A.C.
10	3	0	3	0	3	0	3	0
11	3	0	3	0	3	0	3	0
12	3	0	3	0	3	0	N. S.	N.S.
13	3	0	3	0	3	0	3	0
14	A. C.	A. C.	3	0	3	0	3	0

N. S. = no sample
A. C. = aerobic contamination

TABLE 44 --- Continued

EXPERIMENT VII

				Subject N	lumber			
Sampling	2	:5	2	6		27	2	8
Period	A	F	A	F	A	F	A	F
1	3	0	3	0	1	A. C.	2	1
2	2	1	2	1	3	0	2	1
3	3	0	3	0	1	2	2	1
4	A. C.	1	0	3	1	2	A. C.	1
5	1	2	3	0	1	2	1	2
6	1	2	3	0	3	0	2	1
7	3	0	3	0	2	1	3	0
8	3	0	3	0	1	2	A. C.	A. C.
9	3	0	3	0	2	1	2	A.C.
10	3	0	2	1	2	1	2	1
11	3	0	1	2	2	1	2	1
12	3	0	1	2	1	2	2	1
13	2	1	1	2	2	1	1	A.C.
14	2	1	3	0	2	1	2	1

A. C. = aerobic contamination

TABLE 44 --- Continued

EXPERIMENT VIII

				Subject 1	Number			
Sampling	2	9	3	10	5	31		32
Period	A	F	A	F	A	F	A	F
1	2	1	3	0	3	0	2	1
2	3	0	3	0	2	1	3	0
3	2	1	2	1	1	2	2	1
4	3	0	2	1	1	2	1	A. C.
5	3	0	2	1	2	1	3	0
6	2	1	2	1	2	1	1	2
7	0	3	N.S.	N.S.	1	2	2	1
8	1	2	3	0	2	1	2	1
9	2	1	1	2	2	1	1	A. C.
10	3	0	1	2	1	2	2	1
11	3	0	3	C	2	1	1	A.C.
12	3	0	A. C.	A, C.	2	1	3	0
13	3	0	2	1	1	2	2	1
14	2	1	1	2	1	2	3	0

A. C. = aerobic contamination N. S. = no sample

TABLE 44 --- Concluded

EXPERIMENT IX

				Subject 1	Number			
Sampling		33		34	3	15		36
Period	A	F	A	F	A	F	A	F
1	2	1	3	ð	3	0	3	0
2	3	0	3	0	A. C.	A. C.	2	1
3	2	A. C.	2	A. C.	2	1	2	1
4	3	0	2	A. C.	1	2	2	A. C.
5	1	2	1	A. C.	2	1	1	A. C.
6	2	A.C.	2	A.C.	2	1	2	A. C.
7	3	0	2	1	3	0	1	2
8	2	1	2	1	3	0	2	A. C.
9	1	2	3	0	N.S.	N.S.	2	1
10	2	1	2	1	A. C.	A.C.	2	1
11	3	0	3	0	2	A.C.	2	A.C.
12	2	1	3	0	3	0	1	A.C.

A. C. = aerobic contamination N. S. = no sample

TABLE 45. DISTRIBUTION OF FECAL ANAEROBES
Subject 17 - EXPERIMENT V

				<u> </u>	Sampl	ing Pe	riod				
Anaerobes	1	2	3	4	5	6	7	8	9	10	
FA-1 FA-2 FA-3	2	1	1	1	2 1 1	1	1 1 1	1	2	1	2 2
FA-4 FA-5 FA-6	1 1	2	1		1	1		1	3		1
FA-7 FA-8 FA-9	1	1		1	_11	1	1	ì	1		1 1
FA-10 FA-11 FA-12	1							1		i	
FA-13 FA-14 FA-15 FA-16	2	2	1		2	·				1	1
FA-17 FA-18		1		1 1	_1		1		1	1	1
GD-1 GD-2 GD-3 GD-4	í				1				1		1 1
GD-5 GD-6 GD-7 Unkeyed	2		1		1		¥		1	1	
TOTAL	13	7	4	4	12	4	4	5	10	5	11
FN-1 FN-2 FN-3 FN-4 FN-5	1 1 2 2				1	1					
Unkeyed Lactobacillus Enterococci Miscellaneous	2					1					
TOTAL	9	0	0	0	1	2	0	0	0	0	0

TABLE 45 --- Continued

Subject 18 - EXPERIMENT V

					Samp	ling Pe	riod				
Anaerobes	_1_	2	3	4	5	6	7	8	9	10	11
FA-1				1				1	1	2	
FA-2	_	_			_	2					
FA-3	1	1	·····		_1		1	1	1	2	
FA-4	1			,	•						
FA-5 FA-6				1	1 1					1	
FA-7		·								┝╌╧╌	
FA-8			1				1				
FA-9							1_	1_			
FA-10]		1					
FA-11											
FA-12					_1_		 				
FA-13 FA-14	1			,					1	2	
FA-15	1 1	1	2	1	3			2	1 2	1	
FA-16	*		 _	-						†	
FA-17											
FA-18				İ	2	1	L		1		
GD-1		•									
GD-2											
GD-3							1				
GD-4				L			Ļ			<u> </u>	
GD-5		_						_			
GD-6 GD-7		1						1			
Unkeyed		1		1							
Ontoyeu				╀╧╌			 			 	
TOTAL	4	4	3_	-5	9	4	4	6	7	7	
FN-1							١,				
FN-2							1			2	
FN-3				-			1			1	
FN-4	_			1	1			1	_	2	
FN-5	1						1		1	<u> </u>	
Unkeyed		1		1							
Lack:bacillus								1 1			
Enterococci								1		1	
Miscellaneous					 :-					<u>L</u>	
TOTAL	1	1	0	0	3	ð	2	3	1	5	

TABLE 45 --- Continued

Subject 19 - EXPERIMENT V

					Sa	mpling	Peri	od			
Anaerobes	11	2	3	4_	5	6	7	8	9	10	11
FA-1 FA-2		1	1		1		3		1		1
FA-3	1	3	1			1		<u>i</u>		2	_ î
FA-4 FA-5	1			l	4	•		4			
FA-6	1 1	1	2		1	1		1 1	1		2
FA-7				 -							
FA-8	1					1	1				
FA-9 FA-10	1			 -	_1		2				
FA-11	1						ļ	1			
FA12										_1_	
FA-13											
FA-14 FA-15	2				•	1 1	١.	1		1	
FA-16	4		2		2	_ _	1			2	
FA-17				1							
FA-18	1	1	1		1	1	1		1	2	
GD-1											
GD-2											
GD-3 GD-4				1	1	1					
GD-5				╁╧╾			 			┟┈┷┸	
GD-6	1										
GD-7			1							1	
Unkeyed				1			 				······································
TOTAL	10	6	8	2	8	7	8	55	4	10	5
FN-1		-						. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
FN-2	1			1			Í				
FN-3	1		_								
FN-4 FN-5	1 1		1								
	 			 			 		 	 	
Unkeyed Lactobacillus	1		1	ĺ	1						
Enterococci Miscellaneous	3		•		*						
TOTAL	6	0	2	0	2	0	0	0	0	0	0

TABLE 45 --- Continued

Subject 20 - EXPERIMENT V

		-			Sa	mpling	g Perio	od			
Anaerobes	11	2	3	4	5	6	7	8	9	10	11
FA-1 FA-2		2	1			1	2 1	3	1	2	
FA-3 FA-4	1		1		2		1	1	2	1	
FA-4 FA-5	1	2			1	1					
FA-6				11						1	
FA-7			1				_				
FA-8 FA-9				3		1	1	1			
FA-10											
FA-11											
FA-12					1	·				 	
FA-13 FA-14	1			1					1 1	l 1	
FA-15	î	2	1	1	1		2	3	i		
FA-16											
FA-17 FA-18		0			4						
		2			1						
GD-1 GD-2											
GD-3				4			1				
GD-4											
GD-5					_		1				
GD-6 GD-7		3			2				1		
Unkeyed		2									
TOTAL	4	13	4	6	8	3	9	8	7	6	
FN-1							1				
FN-2										1	
F.1-3 FN-4									1		
FN-5	1						l		1 1		
Unkeyed		·					 				
Lactobacillus Enterococci Miscellaneous							1				
TOTAL	1	0	0	0	0	0	2	0	2	1	

TABLE 45 --- Continued
Subject 21 - EXPERIMENT VI

							Samp	ling	Peri	od					
Anaerobes	1	2	_3_	4	5*	6	7*	8	9	10	11_	_12	13_	14	
	1									1		1			
FA-2	_											l			
1	2			1				1							
FA-4									1			1			
FA-5									1			1			
FA-6 FA-7					 -										
FA-8								2		1	3	1	2	2	
FA-9								24		*	J		4	2	1
FA-10									 						
FA-11				1											
FA-12	L				L										
FA-13															
FA-14	1	1		1	l	1				1	1	1			
FA-15	2	_3_	2	_1	L				<u> </u>	1_	_1_	1	1	1	
FA-16															
FA-17			1	1		1 1			1						
FA-18	1_	1			<u> </u>	_1_		_1	1	1					
GD-1					1				1						
GD-2															
GD-3															
GD-4	ļ				<u> </u>	_1_			 					·	
GD-5															
GD-6	l														
GD-7							1	1	1						
Unkeyed - Ob.	2			1	-		1	1	ì				2		
TOTAL	9	5	3	6	0	4	1	5	4	5	5	5	5	3	
FN-1															
FN-2	1	1							1						
FN-3					1										
FN-4	1										2				
FN-5				·	<u> </u>			,					L		
Unkeyed - Fac.	1														
Lactobacillus															
Enterococci					1				1]		
Miscellaneous															
TOTAL	3	1	0	0	0	0	0	0	0	0	2	0	0	0	

^{*} Cultures showed no growth or were not transferable.

TABLE 45 --- Continued

Subject 22 - EXPERIMENT VI

							Sam	pling	Per	riod					
Anaerobes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
FA-1 FA-2		1	1		2										
FA-3			_1_		1	1		_1_		2					
FA-4				1			1				2				
FA-5 FA-6				1			1				Z				
FA-7	-		1									2	1	5	
FA-8			_	2							1	_	1	ŭ	
FA-9	<u> </u>		·		ļ								_		
FA-10 FA-11			1												
FA-12					1				1				1		
FA-13															
FA-14		_	_	_		_		_		1	1				
FA-15 FA-16	2	_2	1	1	 -	_1_	_2_	_2_	1_		1_		1		
FA-10 FA-17	2					1	1								
FA-18						•	_								
GD-1 GD-2 GD-3 GD-4															
GD-5															
GD-6	1														
GD-7 Unkeyed	2			1					1	1_	1	1			
TOTAL	5	3	5	5	-4	3	4	3	3	4	6	3	4	5	
FN-1 FN-2 FN-3 FN-4 FN-5															
Unkeyed Lactobacillus Enterococci Miscellaneous				1											
TOTAL	0	0	0	1	0	0	0	0	0	0	0	0	0	0	

TABLE 45 --- Continued

Subject 23 - EXPERIMENT VI

_							Sam	pling	Per	riod					
Anaerobes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
FA-1 FA-2			1			1					1	2		1	
FA-3	2	1	2		2			1		1	2_	2	1_		
FA-4 FA-5												1			
FA-6				1	1	1	1					1			
FA-7	_													1	
FA-8														1	
FA-9	ļ								 -						
FA-10 FA-11										1					
FA-11 FA-12					İ										
FA-13										• • • • • • • • • • • • • • • • • • • •					
FA-14			1	2		1	1		1						
FA-15	1_	2				_3_	3	3_	1	2	3		L		
FA-16 FA-17									١,						
FA-18					İ			1 1	1				1		
													╁╧		
GD-1 GD-2												2	1		
GD-3					1							£,	1		
GD-4															
GD-5															
GD-6					l										
GD-7						2	1	1							
Unkeyed	├		·		 				-				 		
TOTAL	3	3	4	3	3	8	6	7	3	4	6	7	3	3	
FN-1 FN-2				1											
FN-3															
FN-4 FN-5												1			
Unkeyed Lactobacillus Enterococci			~					1		-	1				
Miscellaneous											1				
TOTAL	0	0	0	1	0	0	0	1	o	0	1	1	0	0	

TABLE 45 --- Continued
Subject 24 - EXPERIMENT VI

							Sam	pling	Per	iod					
Anaerobes	1	2	3	4	5	6	7	8*	9	10	11	12*	13	14	
FA-1 FA-2					1	1	2								
FA-3		2	2	1	1_	i	1_				1		2		
FA-4															
FA-5			_				_								
FA-6 FA-7			_1_		1		_2_								
FA-7 FA-8		1			1				3	2	3		2	4	
FA-9															
FA-10	 														
FA-11															
FA-12															
FA-13															
FA-14				1	1										
FA-15	3		1		<u> </u>				1	1_	1				
FA-16			1												
FA-17							2								
FA-18	1				<u> </u>										
GD-1					1								1		
GD-2					1										
GD-3															
GD-4													<u> </u>		
GD-5															
GD-6	l					1	1		•				1		
GD-7				_		_									
Unkeyed			·		 	1							<u> </u>		
TOTAL	4	3	5	3	4	4	8	0	4	3	5	0	5	4	
FN-1 FN-2 FN-3 FN-4		-										-			
FN-5	<u>L_</u>								<u> </u>						
Unkeyed Lactobacillus Enterococci Miscellaneous															
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

TABLE 45 --- Continued

Subject 25 - EXPERIMENT VII

	Sampling Period													
Anaerobes	1	2	3	4**	5	6	7	8	9	10	11	12	13**	14
FA-1 FA-2 FA-3								1		1	2			1
FA-4 FA-5 FA-6		1	1				1		1			•		
FA-7 FA-8 FA-9		_				1					1			
FA-10 FA-11 FA-12		1			1	2	1			3		1	1	1
FA-13 FA-14 FA-15				1	1	1	1				1 2	3	1	1
FA-16 FA-17 FA-18		2	2		1 1			1 1	Ż					1
GD-1 GD-2 GD-3 GD-4				1			1	2	1					
GD-5 GD-6 GD-7 Unkeyed	1	1 2			1	1	1		1 2*	1	2*			1
TOTAL	1	8	3	2	5	5	5	5	7	5	8	4	2	5
FN-1 FN-2 FN-3 FN-4 FN-5													1	
Unkeyed Lactobacillus Enterococci Miscellaneous						,	-							
TOTAL	0	0	0	0	0	Ò	0	0	0	0	0	0	1	0

^{*} Satellite colonies mixed curved rod and diplococcus.

** Several cultures showed no growth or were not transferable.

TABLE 45 --- Continued

Subject 26 - EXPERIMENT VII

	Sampling Period														
Anaerobes	1	2*	3	4*	5	6	7	8*	9	10	11	12	13	14	
FA-1										1					
FA-2										1					
FA-3											1		1	2	
FA-4															
FA-5	1					1									
FA-6															
FA-7															
FA-8			1	1		1									
FA-9													<u> </u>		
FA-10		1			1	3		1	2	3	1	1		2	
FA-11															
FA-12	 	_1_	_1_	1	1				ļ		_1	_1_	1	1_	
FA-13	l .														
FA-14	1					1									
FA-15	├												 		
FA-16 FA-17										-	_	_			
FA-18										1	1	1			
	 					 .									
GD-1					ļ										
GD-2															
GD-3					1			1		1		1	1	1	
GD-4					<u> </u>								ļ		
GD-5	l_		_										Ì		
GD-6	1		1			3			1						
GD-7			•				_		_	_					
Unkeyed	-		1				_1_		1	1					
TOTAL	3	2	4	2	3	9	1	2	4	7	4	5	3	6_	
FN-1												·			
FN-2															
FN-3													1		
FN-4													Í		
FN-5															
Unkeyed	ī	·						1	 				†		
Lactobacillus]_				1			•					Í		
Enterococci	l				Ì										
Miscellaneous															
TOTAL	1	0	0	0	0	0	0	1	0	0	0	0	0	0	

^{*} Several cultures showed no growth or were not transferable.

TABLE 45 --- Continued

Subject 27 - EXPERIMENT VII

	Sampling Period													
Anaerobes	1*	2	3	4	5	6*			9*	10	11	12*	13	14
FA-1										****				
FA-2	1													
FA-3				_	1_1_									
FA-4														
FA-5)	1			j								1	
FA-6														
FA-7	J				Ì				}					
FA-8	1	•			İ				1		•			
FA-9 FA-10	-	1		1	 				├		2_			
FA-11				T	1				ł					
FA-12					1		1							
FA-13					†				<u> </u>					
FA-14						1							1	
FA-15	Ĺ	1		1	Í								2_	1
FA-16														
FA-17									2	3	1			1
FA-18	<u> </u>				<u> </u>			1_	<u> </u>					1
GD-1	l				ľ									
GD-2									l					
GD-3					ĺ			2						
GD-4	 								<u> </u>					
GD-5	ļ				١.									
GD-6 GD-7					1								1	
Unkeyed					1	4			ł					
Olikeyed	<u> </u>				1-	1								
TOTAL	0	3	0	2	3	2	1	3	2	3	3	0	5	3
FN-1														
FN-2					Ì				1					
FN-3														
FN-4			1		1		1		l			I		
FN-5		2	2	3	1							ļ		
Unkeyed	-				1	1	4					1		····
Lactobacillus	Ī					-	-					-		
Enterococci					1							ľ		
Miscellaneous														
TOTAL	0	2	3	3	2	1	5	0	0	0	0	1	0	0

^{*} Several cultures showed no growth or were not transferable.

TABLE 45 --- Continued

Subject 28 - EXPERIMENT VII

						1	Samp	ling	P ri	od					
Anaerobes	1	2	3	4*	5	6	7	8*	9*	10	11	12	13	14	
FA-1 FA-2									1		1				
FA-3			1			2	1				1	2	<u> </u>		
FA-4					1 _	_				1					
FA-5	1	_	_		1	1			ł				ļ		
FA-6		_1_	$-\frac{1}{1}$		ļ				<u> </u>				<u> </u>		
FA-7			Ţ						1	T	4		ļ		
FA-8						2					1				
FA-9	2				ļ										
FA-10													1		
FA-11	1														
FA-12	<u> </u>				ļ				ļ	 			 -		
FA-13					١,				İ	1		1	1	9	
FA-14	2	1	1		2		1			1 1		1	1	2 1	
FA-15	 	1	_1_						 						
FA-16	2										1		1		
FA-17 FA-18	2					1			İ		1		1	1	
					ļ				<u> </u>						
GD-1													•		
GD-2					j										
GD -3					ł				•	1					
GD-4	<u> </u>				<u> </u>								ļ		
GD-5															
GD-6								1					1		
GD-7								4	١.				Ì		
Unkeyed	ļ							1	1		· · · · ·				
TOTAL	7	2	4	0	3	6	2	2	2	5	4	3	3	4	
FN-1															
FN-2]										
FN-3					1										
FN-4				1	-										
FN-5				-											
Unkeyed Lactobacillus Enterococci Miscellaneous															-
TOTAL	0	0	0	1	1	0	0	0	0	0	0	0	0	0	

^{*} Several cultures showed no growth or were not transferable.

TABLE 45 --- Continued

Subject 29 - EXPERIMENT VIII

					Sa	mpli	ing P	eriod	*****					
Anaerobes	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FA-1 FA-2		1	1							1				
FA-3	L	1_			↓_						1		$oxed{oxed}$	
FA-4 FA-5 FA-6	1	2		1	Ì				1		4	3	3	2,
FA-7 FA-8	1						1	.	†					
FA-9	2	1	1_		↓_				↓	1			↓_	
FA-10 FA-11 FA-12	1	1 1 2				1				1	1			
FA-13 FA-14 FA-15	1	2			2	1	1 1 1	1	1					
FA-16 FA-17							<u> </u>		1				十	
FA-18	1			2		1	1		1	3	1			
GD-1 GD-2 GD-3 GD-4			1 1	1					1					
GD-5 GD-6 GD-7				1										1 ⁽¹⁾
Unkeyed	1	1	1				1(4)	2			2(3,	.4)		1
TOTAL	9	13	5	5	3	3	6	3	5	7	9	3	3	4
FN-1 FN-2 FN-3 FN-4 FN-5							1							
Unkeyed Lactobacillus Enterococci Miscellaneous	1	1	1	1			2 1 1(2)	2		1		1		
TOTAL	1	1	1	1	0	0	5	3		1		1	0	0

(1) GD5A
(2) Streptococcus faecalis
(3) Possibly clostridium sp.

(4) Peptococcus

NOTE: numbers include biochemical and morphological identification.

TABLE 45 --- Continued

Subject 30 - EXPERIMENT VIII

				• •	Saı	mpli	ng P	eriod		_			
Anaerobes	1	2	3	4	5	6	7	8	9	10	11	12	13 14
FA-1 FA-2 FA-3			1	2				2	1				2
FA-4 FA-5 FA-6			1	1	1	1							1
FA-7 FA-8 FA-9 FA-10	1					11				_1_	1		
FA-11 FA-12 FA-13					2	. <u>.</u>			_				1
FA-14 FA-15 FA-16	2	2_		1	1 2			1 3	1	_3_	_1_	2 _1	1 1 1
FA-17 FA-18 GD-1				1	! ! !	1	·	_1		_ 2_		2 1	1 1
GD-2 GD-3 GD-4												1	
GD-5 GD-6 GD-7 Unkeyed	₁ (3)	1 ⁽⁴⁾	2 (5)	3*	2**	1 2**	: *				•	₁ (3)	1 1(3) 1(6)
TOTAL	4	3	6	9	8.	7	0	7	3	6	3_	7	8 6
FN-1 FN-2 FN-3 FN-4 FN-5									1 1				
Unkeyed Lactobacillus Enterococci Miscellaneous				1 1 ⁽¹⁾		1			1	3	1 (2)		
TOTAL	0	0	0	2	0	1	0	0	3	3	2		0 0

(1) PS₂
 (2) Peptostreptococcus morbillorum

(3) Sphaerophorus ridiculosus

* one (3), two (4); **one (3), one (7);

*** one (2), one (7)

(4) Peptococcus Sp.

(5) Vibrio sputorum 1

(6) Peptostreptococcus parvulus

(7) Vermiform

Numbers include biochemical and NOTE: morphological identification.

TABLE 45 --- Continued

Subject 31 - EXPERIMENT VIII

					San	plin	g Pe	riod					
Anaerobes	1	2	3	4	5	6	7	8	9	10	11	12	13 14
FA-1 FA-2 FA-3		2			1			1			-	1	
FA-4 FA-5 FA-6								1					
FA-7 FA-8 FA-9		1						1					
FA-10 FA-11 FA-12 FA-13		_1_	1			******				··		_1_	2
FA-13 FA-14 FA-15 FA-16	1	2_	_4_	_4	1	<u>2</u> 1	3	2	1 3	<u>4</u> 1	1	2	3
FA-17 FA-18	1		1	1	1	1		1	1	1	1	1	1 1
GD-1 GD-2 GD-3 GD-4				2								1	
GD-5 GD-6 GD-7 Unkeyed	1	1		2 ^(3,4)	₁ (2)	1(4)		1(4)	₁ (4) 2	102)	1(2)
TOTAL	3_	7	6	9	6	5	3	<u>ç</u>	6_	8	5_	7_	8
FN-1 FN-2 FN-3 FN-4 FN-5			1	1		1	2		1				
Unkeyed Lactobacillus Enterococci Miscellaneous			1(1	1 1(1)		***************************************	_ _	3					
TOTAL	0	0	2	3	0	1	2	3	1	0	0	0	0

(1) PS₂

*one (3), one (4)

(2) Peptostreptococcus lanceolatus

(3) An. vibrio (4) Peptococci

NOTE: Numbers include biochemical and morphological identification.

TABLE 45 --- Continued

Subject 32 - EXPERIMENT VIII

Anaerobes					<u>san</u>	nplin	g Pe	riod							
	1	2	3_	4	5_	_6_	7	_8	9	10	11_	12	13	14	
FA-1						2		-	1					1	
FA-2						_									l
FA-3					L			2	L	1		1	<u> </u>	1	
FA-4															1
FA-5						1							1	1	
FA-6 FA-7					1		$\frac{1}{1}$								
FA-8				1			1						1		
	1	1	1	1					1				1		1
FA-10		_==	_=_						 		- 		†		
FA-11					1				1						
FA-12				1	1	1_		1		1	_1_	_1_		·	
FA-13					1				Į						
FA-14	_	1			1			_	1		_	_	İ	_	
	1_	1_			3_	_3_	2_		2_	3	1_	_1_	2	3	
FA-16 FA-17		7			1		•	1					١.,		
FA-17 FA-18		1	1	1	1	1	3 1	1		1	1		1 1	2	
					1-		<u> </u>	1	 				╁╧		
GD-1	_		1												
	1				1							1			
GD-3 GD-4															
GD-5					+-				┼				 		
	1	1										1			
GD-7	•	•										*			
Unkeyed		2	1			1(1)	1(2)			1					
TOTAL	4	7	4_	3	8	9	9	6	4	7	3	5	6	8	
F'N-1															
FN-2									1						
FN-3					1				1				1		
FN-4				1	1	1									İ
FN-5				•		-							1		,
Unkeyed						1	1	1	1				1		-
Lactobacillus						•	•	.	1						
Enterococci									1						
Miscellaneous															
TOTAL	0	0	0	1	1	2	1	1	0	0	0	0	0	0	

(1) Sphaerophorus sp.(2) Peptococcus

NOTE: Numbers include biochemical and morphological identification

TABLE 45 --- Continued

Subject 33 - EXPERIMENT IX

				Samp	ling P	eriod						
Anaerobes	1	2	3	_4	5	6	7	8	9	10	_11_	12
FA-1 FA-2 FA-3 FA-4	2			2								
FA-5 FA-6 FA-7								·				·
FA-8 FA-9			2		1				1		1	
FA-10 FA-11 FA-12	1			1	1	1	3	1	5	4	3	
FA-13 FA-14 FA-15							2				^_	1
FA-16 FA-17 FA-18	1			2			1				1	
GD-1 GD-2 GD-3 GD-4	•	2 2						1				
GD-5 GD-6 GD-7 Unkeyed		1*				₁ (3)		(2) ₁		_		1(1),(3
TOTAL	6	5	2	5	3	2	6	4	6	5	5	5
FN-1 FN-2 FN-3 FN-4 FN-5												
Unkeyed Lactobacillus Enterococci Miscellaneous	1 1 1 ⁽³⁾			1	1		2	1	1	1	3	1
TOTAL	3	0	0	1	1	0	2	i	1	1	3	11

(1) Peptococcus grigoroffi(2) Fusobacterium sp.(3) Peptostreptococcus sp.

* GD-5A

NOTE: Numbers include biochemical and morphological identification.

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TABLE 45 --- Continued

Subject 34 - EXPERIMENT IX

				Samp	ling Pe	eriod						
Anaerobes	1	2	3	4	5	6	7	8	9	10	11_	12
FA-1		1										
FA-2		1										
FA-3					1			1	1			
FA-4							 -					
FA-5												
FA-6												
FA-7	2								2			
FA-8	1											
FA-9			3			2		1	22	L		
FA-10												
FA-11										<u> </u>		
FA-12	1	_1				1	4	2	1	1		
FA-13												
FA-14								-				
FA-15 FA-16		~			1			1		 -		
FA-10 FA-17												
FA-18												
							 -			├		
GD-1						1		1		4		2
GD2												
GD-3												
GD-4 GD-5							 			 		
GD-6	1				1	3						
GD-8 GD-7	ĺ											
Unkeyed	12) [(5)	₁ (4) ₁ (1) ₁						₁ (2)			
Olikeyeu	1,00	1(0)	1(1/1/4)				 		1(-)			
TOTAL	7	3	6	0	3	7	4	6	8	5	0_	2
FN-1												
FN-2												
FN-3	I											
FN-4	l											
FN-5												
Unkeyed		····	1					1		1		
Lactobacillus	1		_	1			1	*				
Enterococci										l		
Miscellaneous	1(3)			2 ⁽³⁾								
TOTAL	1	0	1	2	0	0	0	1	0	1	0	0

(1) Peptostreptococcus parvulus
(2) Peptostreptococcus sp.

NOTE: Numbers include biochemical and morphological identification.

(3) PS₂
(4) Peptostreptococcus productus
(5) Peptostreptococcus micros

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TABLE 45 --- Continued

Subject 35 - EXPERIMENT IX

			 	Samp	ling Per	riod						
Anaerobes	1	2	3	4	5	6	7	8	9	10	11	12
FA-1											2	
FA-2	}		,				•			}		
FA-3	1		1		1		Ĭ			ľ		
FA-4												
FA-5	i		;			2				[
FA-6							2					
FA-7	2											
FA-8]					1	١.			1	2	1
FA-9							1			L		
FA-10]		
FA-11	[]			}			Į		
FA-12	1				2					<u> </u>		
FA-13])			1			}		
FA-14	1			Į						ł		
FA-15	<u></u>			1						<u> </u>		
FA-16					1		1			1		
FA-17]		1	•]			1		
FA-18		1								<u> </u>		
GD-1	1		1				ĺ	1		•		4
GD-2	1			1			1			}		
GD-3	ĺ]			1			}	1	
GD-4							<u> </u>					
GD-5]]		2				1		2
GD-6	}]						}		
GD-7				ł	445			2		i		
Unkeyed	1 ⁽²⁾ 1		1 ⁽³⁾		2 ⁽¹⁾		1	1 3(4)		3		
TOTAL	8	1	4	1	6	5	3	7	NS	3	5	7
FN-1												
FN-2	1											
FN-2 FN-3	}			1						1		
FN-3 FN-4	1			1								
FN-5	ł									ł		
	 			 			<u> </u>			 		
Unkeyed	1			}		1				1		
Lactobacillus	ł .			l						ļ		
Enterococci	Į.			1			1					
Miscellaneous							<u> </u>					
TOTAL	0	0	0	0	0	1	0	0	NS	0	0	0

(1) Lactobacillaceae sp.
 (2) Peptococcus aerogenes
 (3) Fusobacterium sp.

(4) Peptostreptococcus sp.

NS = no sample

NOTE: Numbers include biochemical and morphological identification.

TABLE 45 --- Concluded

Subject 36 - EXPERIMENT IX

				Samp	ling P	eriod						
Anaerobes	1	2	3	4	5	6	7	8	9	10	11_	12
FA-1 FA-2												
FA-3 FA-4	 			1			├ ─			├ —		
FA-5	}			ĺ		•				3		
FA-6	ł			ł						1		
FA-7	 	4					†			1		
FA-8		•					1			1		
FA-9										1		
FA-10					2							
FA-11				1	_							
FA-12			2				1_1_			<u> </u>	_3	i
FA-13										T		
FA-14		1		1			ĺ				1	
FA-15			3	<u> </u>			<u> </u>		2			- 2
FA-16				1			}			1		
FA-17	1									2		
FA-18								· · · · · · · · · · · · · · · · · · ·		<u> </u>	4 ·· · · · · · · · · · · · · · · · · ·	
GD-1				ŀ			į			İ		
GD-2				ĺ						ĺ		
GD-3				İ	2		1			1		
GD-4	<u> </u>						<u> </u>			<u> </u>		
GD-5									_			
GD-6										j		
GD-7							}		1	j		
Unkeyed	2 ⁽⁶⁾		1 2(2)	₂ (4)		1	<u> </u>	1(1)		<u> </u>	· · · · · · · · · · · · · · · · · · ·	
TOTAL	4	5	8	5	4	1	1_	1	3	5_	4	9
FN-1					****							
FN-2	1						3			ł		
FN-3	ł			!						1		
FN-4										}		
FN-5	i						l		4	İ		
Unkeyed		3	1	3			-					
Lactobacillus	i	J	•	"			3			3		1
Enterococci							2			"		
Miscellaneous	3 ⁽⁵⁾					1(7)	9	5(3)			₃ (1)	
TOTAL	3	3	1	3	0	1	5	5	4	3	3	-

Peptostreptococcus sp.
 Peptostreptococcus productus
 Micrococcaecae

(4) Lactobacilli

(5) PS₃(6) Fusobacterium sp.

(7) PS₂

NOTE: Numbers include biochemical and morphological identification.

TABLE 46. TOTAL DISTRIBUTION OF FECAL ANAEROBES BY SUBJECT

EXPERIMENT V

		Subject Number		
Anaerobes	17	18	19	29
FA-1	9	5	7	11
FA-2	4	2	1	2
FA-3	11	8	10	9
FA-4	0	1	0	1
FA-5	2	2	4	4
FA-6	10	2	8	2
FA-7	1	0	1	1
FA-8	5	2	3	2
FA-9	5	2	4	5
FA-10	1	1	2	0
FA-11	0	0	0	0
FA-12	2	1	1	1
FA-13	0	3	0	2
FA-14	1	3	3	4
FA-15	8	12	10	12
FA-16	0	0	0	0
FA-17	1	0	1	0
FA-18	7	4	9	3
GD-1	0	0	0	0
GD-2	0	0	0	0
GD-3	2	1	0	1
GD-4	3	0	5	0
GD-5	0	0	0	0
GD-6	4	2	1	6
GD-7	2	0	2	0
Unkeyed	1	2	1	2
TOTAL	79	53	73	68
FN-1	0	1		•
FN-2	0 2	1	0	1
FN-2 FN-3	2 1	2 0	2	1
FN-3 FN-4	3	1		0
FN-5	3 2	4 3	2	1 2
		3	1	2
Unkeyed	2	1	1	0
Lactobacillus	1	1	2	0
Enterococci	1	2	1	1
Miscellaneous	0	0	0	0
TOTAL	12	14	10	6

U:

E: M

TABLE 46 --- Continued

EXPERIMENT VI

		Subject Number		
Anaerobes	21	22	23	24
FA-1	3	4	6	4
FA-2	0	0	0	ō
FA-3	4	6	14	11
FA-4	0	0	0	0
FA-5	2	4	1	0
FA-6	0	ິງ	4	4
FA-7	0	9	1	16
FA-8	11	4	1	0
FA-9	0	00	0	0
FA-10	0	1	1	0
FA-11	1	9	0	0
FA-12	0	3	0	
FA-13	0	0	0	0
FA-14	7	2	6	1
FA-15	13	12	18	7
FA-16	0	2	0	1
FA-17	4	2	2	2
FA-18	6	0	2	1
GD-1	0	0	0	0
GD-2	0	Ō	•	ŏ
GD-3	0	0	3 0	ŏ
GD-4	1	0	0	0
GD-5	0	0	0	0
GD-6	9	1	0	3
GD-7	0	0	0	0
Unkeyed	8	7	4	2
TOTAL	60	57	63	52
FN-1	0	0	0	0
FN-2	2	0	l ĭ	0
FN-3	0	0	l ô	0
FN-4	1	ő	ľ	ő
FN-5	Ô	Ö	i	ě
Unkeyed	3	1	1	0
Lactobacillus	0	0	0	0
Enterococci	0	0	1	0
Miscellaneous	0	0	0	0
TOTAL	6	1	4	0

TABLE 46 --- Continued

EXPERIMENT VII

		Subject Number	•	
Anaerobes	25**	26**	27*	28*
FA-1	0	1	0	2
FA-2	0	0	0	0
FA-3	5	0	1	0 7
FA-4	0	0	0	1
FA-5	1	2	ž	3
FA-6	3	ő	ŏ	3 2
FA-7	1	0	0	2
FA-8	0	3	0	3
FA-9	1	0		2
FA-10	11	15	1	0
FA-11	0	0	0	0
FA-12	0	8		
FA-13	0	0	0	0
FA-14	2	2	2	9
FA-15	10	1	5	6
FA-16	0	0	0	0
FA-17	7	3	7	3
FA-18	5	0	2	3
GD-1	0	0	0	0
GD-2	0	0	0	0
GD-3	5	6	2	1
GD-4	0	0		0
GD-5	1	0	0	0
GD-6	7	6	2	1
GD-7	1	0	0	0
Unkeyed	5*	4	2	2
TOTAL	65	55	30	47
FN-1	0	n	G	
FN-1 FN-2	0 1	, v	1	0
FN-3	0	0	0	0
FN-4	0		0	1
FN-5	0	0	3 8	1 0
Unkeyed	e	2	6	
Lactobacillus	0	0	0	0
Entercocci	0	0	0	0
Miscellaneous	Ö		0	0 0
TOTAL	1	2	17	2

^{* 4} Satellite colonies mixed curved rod and displococcus.

** Several culture showed no growth or were not transferable.

TABLE 46 --- Continued

EXPERIMENT VIII*

		Subject Number		
Anaerobes	29	30	31	32
FA-1	3	Д	3	4
FA-2	0	4 3	1	Õ
FA-3	2	2	Î	5
FA-4	0	0	0	6
FA-5	17	4	1	3
FA-6	1	1		1
FA-7	1	0	0	2
FA-8	1	1	1	2
FA-9	5	3	2	4
FA-10	2	0	1	0
FA-11	2 2	1	0	0
FA-12	4	3	4	7
FA-13	3	0	0	0
FA-14	2	5	3	2
FA-15	7	17	32	23
FA-16	1	2	6	1
FA-17	8	0	2	5
FA-18	4	9	8	11
GD-1	0	2	1	1
GD-2		0	3	1 3
GD-3	1 2 1	0	0	0
GD-4	1	0	0	0
GD-5	(1)	0	0	0
GD-6	1	3	0	3
GD-7	0	4	1	0
Unkeyed	9	13	12	6
TOTAL	78	77	82	83
FN-1			1	
FN-2	0	0	1	0
FN-2 FN-3	0 0	0 1	0	0
FN-4	0	1 1	3	1 2
FN-5	0	0	3	0
Unkeyed	10	7	5	3
Lactobacillus	1	ĺ	0	0
Enterococci	1	ľ	0	0
Miscellaneous	î	2	ő	Ŏ
TOTAL	13	10	12	6

(1) GD5A

^{*} Numbers include biochemical and morphological identification.

TABLE 46 --- Concluded

EXPERIMENT IX*

		Subject Number		
Anaerobes	33	34	35	36
FA-1	0	1	2	0
FA-2	2	0	l ő	ő
FA-3	2	3	3	1
FA-4	2	0	0	3
FA-5	0	Ö	2	Ö
FA-6	Ö	ŏ	2	0
FA-7	1	4	2	4
FA-8	0	1	4	0
FA-9	4	88	11	0
FA-10	0	0	0	2
FA-11	2	0	0	1
FA-12	18	U	3	7
FA-13	0	0	0	0
FA-14	0	0	1	3 7
FA-15	3	2	1	
FA-16 FA-17	1 3	0	1	0
FA-18	3 1	0	1	3 0
		U	<u> </u>	U
GD-1	2	8	7	0
GD-2	2	0	0	0
GD-3	0	0	1	2
GD-4	1 GD5A1	0	0	0
GD-5	*	5	4	0
GD-6	0	0	0	0
GD-7	0 8	0 7	2	1 10
Unkeyed	0		13	10
TOTAL	54	51	51	44
FN-1	0	0	0	0
FN-2	0	Ö	Ŏ	Ŏ
FN-3	0	0	0	Ŏ
FN-4	0	0	0	Ō
FN-5	0	0	0	4
Unkeyed	2	4	1	5
Lactobacillus	1	0	Ō	6
Enterococci	Ô	Ö	0	2
Miscellaneous	0	2	Ö	12
TOTAL	3	6	1	29

^{*} Numbers include biochemical and morphological identification.

TABLE 47. TOTAL DISTRIBUTION OF FECAL ANAEROBES BY SAMPLING PERIOD

Subject 17 through 20 - EXPERIMENT V

						Sam	pling	Peri	iod			
Anaerobes	1	2	3	4	5	8	7	8	9	10	11	TOTAL
FA-1	2	3	2	1	3	1	6	5	5	4	0	32
FA-2	0	0	Õ	Ō	1	3	1	Õ	ő	i	3	9
FA-3	4	5_	3	1	4	2	$-\hat{3}$	4	4	5	3	38
FA-4	2	0	0	0	0	0	0	0	0	0	0	2
FA-5	2	2	0	1	4	2	0	1	0	0	0	12
FA-6	2	3	3	1	1	1	0	2	4	2	3	22
FA-7	0	1	1	0	0	0	0	0	0	1	0	3
FA-8	2	0	1	0	0	2	4	1	1	1	0	12
FA-9	2	0	0	4	2	1	4	2	0	1	0	16
FA-10	2	0	0	0	0	1	0	1	0	0	0	4
FA-11	0	0	0	0	0	0	0	0	0	0	0	0
FA-12	0	0	0	_0	3	0	0	1	0		0	5
FA-13	0	0	0	0	0	0	0	0	2	3	0	5
FA-14	2	0	0	2	0	1	0	1	2	2	1	11
FA-15	6	5	6_	2	8	1	3	5	3	3	0	42
FA-16	0	0	0	0	0	0	0	0	0	0	0	0
FA-17	C	0	0	2	0	0	0	0	0	0	0	2
FA-18	1	4	1_	1	5	2	2	0	3	3	1	23
GD-1	0	0	0	0	0	0	0	0	0	0	0	0
GD-2	0	0	0	0	0	0	0	0	0	0	0	0
GD-3	1	0	0	0	0	0	2	0	0	0	1	4 8
GD-4	0	0	0	1	2	1	0_	0_	2	1_	1	
GD-5	0	0	0	0	0	0	0	0	0	0	0	0
GD-6	3	4	0	9	3	0	0	1	2	0	0	13
GD-7	0	0	2	0	0	0	0	0	0	2	0	4
Unkeyed	0	3	0	_1	2	0	0	0	0	0	0	6
TOTAL	31	30	19	16	39	18	25	24	28	30	13	273
FN-1	0	0	0	0	0	0	1	0	0	0	0	1
FN-2		0	0	0	2	0	ō	Õ	lo	3	Ö	1 7
FN-3	2 2	0	0	0	l õ	0	õ	Ğ	o	ő	Ŏ	7 2
FN-4	3	0	ĭ	Õ	li	ì	1	1	Ĭ	2	0	u
FN-5	5	0	Ō	0	ō	0	1	0	2	0	o	8
Unkeyed	3	1	0	0	0	e	0	0	10	0	0	4
Lactobacillus	o	Ô	1	Ŏ	ĺ	ì	0	1	lo	0	Õ	
Enterococci	2	Õ	ō	ŏ	ō	Ō	1	1	li	0	Ŏ	4 5
Miscellaneous	0	0	0	Ō	0	0	0	0	0	0	0	o
TOTAL	17	1	2	0	4	2	4	3	4	5	0	42

TABLE 47 --- Continued

Subject 21 through 24 - EXPERIMENT VI

															
Anaerobes	1	2	3	4		6	7	8_	9	10	11	12	13	14	TOTAL
FA-1	1	1	2	0	3	2	2	0	0	1	1	3	0	1	17
FA-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FA-3	4	3	5	2	4	_2	_1_	3	0	3	3_	2	3	0	35
FA-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FA-5	0	0	0	1	0	0	1	0	1	0	2	2	0	0	7
FA-6	0	0	_1_	_1	2	_1_	3	0	0	0	0	0	0	0	8
FA-7	0	1	1	0	1	0	0	0	3	2	3	2	3	10	26
FA-8	0	0	0	2	0	0	0	2	0	1	4	2	3	3	17
FA-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FA-10	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2
FA-11	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
FA-12	0	0	0	0	1	$\frac{0}{0}$	0	0	1	0	0_	0	1	0	3
FA-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FA-14	1	1	0	4	0	2	1	0 5	1 3	2	2 6	1 1	2	1	15 50
FA-15 FA-16	6 2	$\frac{7}{0}$	$\frac{4}{1}$		<u>ن</u> 0	<u>4</u> 0	5	$\frac{3}{0}$	10	$\frac{4}{0}$	0	0	$\frac{2}{0}$	$\frac{1}{0}$	3
FA-16 FA-17	0	0	1	1	0	2	3	1	2	0	0	0	0	0	10
FA-17 FA-18	2	1	0	0	Ú	1	0	2	1	1	0	0	1	0	9
 	2								 				 		
GD-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GD-2	0	0	Ŏ	Ö	Ŏ	Ŏ	Ō	Õ	O	0	Ō	2	1	0	3
GD-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GD-4	O_	_0_	_0_	0	0	_1_	0	0_	10_	0_	_0_	0	0	0_	1_
GD-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GD-6	1	0	0	0	0	1	1	0	0	1	0	0	1	0	5
GD-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unkeyed	4	0	0	3	0	3	2_	2	2	1	1	_1_	2	0	20
TOTAL	21	14	16	17	11	19	19_	15	14	17	22	16	17	15	232
FN-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FN-2	1	1	0	1	0	0	0	0	lo	0	0	0	0	0	3
FN-3	Ìō	0	0	ō	O	Õ	Õ	Ö	lo	0	Õ	Õ	lo	Õ	Õ
FN-4	ľ	Õ	0	ő	lo	0	0	Õ	lo	Õ	2	Õ	lŏ	0	3
FN-5	0	0	0	0	o	Õ	0	Ŏ	Ŏ	0	ō	1	Ŏ	0	1
Unkeyed	11	0	0	1	0	0	0	1	0	0	0	0	0	0	3
Lactobacillus	0	0	0	0	0	0	0	0	0	U	0	0	0	0	0
Enterocecci	lo	0	0	0	0	0	0	0	0	Ġ	1	0	0	0	1
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	1	0	2	0	0	0	1	0	0	3	1	0	0	11

TABLE 47 --- Continued

Subject 25 through 28 - EXPERIMENT VII

						San	ıplir	ıg Pe	riod						
Anaerobes	1	2	3_	4	5	_6_	7	8	9	10_	_11_	_12	13	14	TATCT
FA-1	0	0	0	0	0	0	0	0	1	1	1	0	0	ទ	3
FA-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FA-3	0	_0_	_1_	0_	_1	2	_1	_1		1_	4	_2	1	3_	17
FA-4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
FA-5	2	1	0	0	1	2	1	0	0	0	0	0	1	0	8
FA-6	0	2	2	0	0	0_	0	0_	1_	0_	0_	_0	0	_0	5
FA-7	0	0	1	0	0	0	0	0	0	1	1	0	0	9	3
FA-8	0	0	1	1	0	3	0	0	0	0	1	0	0	0	6
FA-9	2	1	_0_	_0	0	_	_0_	_0_	0	0_	_2	0_	_0	_0_	6
FA-10 FA-11	0	2	0	1	2	5	1	1	2	6	1	2	1	3	27
FA-11 FA-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FA-12 FA-13	0	-	_	0		0_		_0_	0		<u>_</u>		1		9
FA-14	3	0	0	0	0 2	0 3	0	0	0	0	0	0	0	0	0
FA-15	0	2	1	2	1	0	2	0	0	1	1	1	2 4	2	15 22
FA-16	0	0	0	0	0	0	0	 0	O	0	0	0	0	0	0
FA-17	2	2	2	Ğ	lĭ	Õ	Õ	1	2	4	3	1	O	2	20
FA-18	0	1	0	0	1	1	0	2	2	0	0	0	1	2	10
GD-1	0	0	0	0	0	G	0	0	0	0	0	0	0		0
GD-2	o	0	0	0	ő	0	0	0	ő	0	0	0	0	0	0
GD-3	e	0	0	1	ĭ	ő	1	5	1	2	0	1	1	1	14
GD-4	Ô	ŏ	Ô	Ô	ñ	Ô	Ô	n	ñ	O.	_0_	n	<u>ה</u>	42	0
GD-5	0	1	0	0	0	0	0	0	0	0	Õ	0	0	0	1
GD-6	2	2	1	0	2	4	0	1	2	þ	0	0	1	1	16
GD-7	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Unkeyed	0	0	1	0	1	1	1	1	4	2	2	0	0	0	13
TOTAL	11	15	11	6	14	22	9	12	15	20	19	12	13	18	197
FN-1	0	0	0	0	0	0	0	0	1	0		n	0	0	0
FN-2	0	Õ	Õ	Õ	lo	Õ	0	0	lo	0	0	0	1	0	1
FN-3	0	Õ	0	Õ	ĺ	Õ	0	õ	lő	0	ŏ	Ö	ō	Õ	î
FN-4	0	0	1	1	1	Ō	1	Ŏ	o	Õ	Õ	Ō	o	Õ	4
FN-5	0	2	2	3	1	0	0	0	0	0	0	0	Ŏ	0	8
Unkeyed	1	0	e	0	0		4	1	0	0	0	1	0	0	8
Lactobacillus	0	0	0	0	0	0	Ō	0	o	Ō	0	0	Ŏ	Õ	Ö
Enterococci	0	0	0	0	0	0	0	0	o	0	Ō	0	Ŏ	Ō	Ŏ
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	2	3	4	3	1	5	1	0	0	0	1	1	0	22

TABLE 47 --- Continued

Subject 29 through 32 - EXPERIMENT VIII*

					v ~	Sam	pling	y Per	iod						
Anaerobes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	TOTAL
FA-1	0	0	1	2	1	2	0	0	1	1	0	0	2	1	11
FA-2	0	0	0	e	0	0	0	2	1	0	0	1	0	0	4
FA-3	0	0	1_	0	0_	0	0	3_	Q.		1_	1	l_i	i_	<u> </u>
FA-4	0	0	0	0	0	0	0	0	0	0	0	c	0	0	0
FA-5	1	2	0	2	1	2	0	1	1	0	4	3	4	4	25
FA-6	0	_1	1_	Q	0_	0	1	0_	0	0_		O	_0_	_0_	3
FA-7	1	0	0	0	1	0	1	0	0	0	0	0	0	0	3
FA-8	0	0	0	0	0	0	1	0	0	O	1	0	1	0	3
FA-9	4	3	_ 2	0	0	_1	0	1_	1_	2_	_0_	_0_		_0	14
FA-10	1	1	0	0	0	0	0	6	0	0	0	0	0	0	2
FA-i1	0	1	0	0	0	0	0	0	0	1	0	0	0	1	3
FA-12	0_	_3_	0	_1_	3	2	0	_1_	_0_	1_	2	_2	2	_1	18
FA-13	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
FA-14	0	1	0	0	4	0	1	1	1	0	0	2	0	1	11
FA-15	5_	7	_4_	5	6	6_	_6_	_7_	7	<u> 10</u>	_3	_4	_6_	3_	79
FA-16	0	0	0	0	0	1	0	2	1	1	1	1	1	0	8
FA-17	2	1	0	2	0	0	3	G	0	3	1	0	2	0	14
FA-18	1	0	2	3	2	3_	_2	3	2	4	1_	_3_	3	_3_	32
GD-1	o	0	1	0	0	1	1	0	0	1	0	1	6	0	5
GD-2	1	0	0	2	1	0	0	0	1	0	0	2	0	0	7
GD-3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
GD-4	Δ_	0	_1_	0	_0_	_0_	_0_	_0_	_0_	0_	_0_	_0_	0	_0_	1
GD-5	0	0	0	e	0	ð	0	0	0	0	0	. 0	0	1	1
GD-6	1	1	2	0	0	1	0	0	0	0	0	1	0	0	4
GD-7	0	0	0	0	1	1	0	0	0	0	1	0	1	0	4
Unkeyed	3	5	4	4	2	3	2	3	2	3	4	1_	2	_2	41
TOTAL	20	26	20	22	24	23	19	24	18	28	19	22	25	18	308
FN-1	0	0	2	1	0	0	1	0	0	0	0	0	0	0	4
FN-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FN-3	o	0	Ŏ	Õ	ľi	Ö	Õ	Õ	ľ	0	Õ	0	ŏ	0	2
FN-4	o	0	Ō	2	lō	2	Õ	Õ	lî	0	0	0	ő	Õ	5
FN-5	0	0	0	0	0	0	2	Ŏ	ī	Õ	0	0	0	0	3
Unkeyed	1	1	0	3	0	2	3	6	1	4	1	1	9	0	23
Lactobacillus	0	0	0	0	0	0	1	0	0	0	Ð	0	0	0	1
Enterococci	0	0	0	0	0	0	0	1	O	Õ	0	Õ	lo	Õ	î
Miscellaneous	0	0	0	1	0	0	1	0	0	0	1	Ŏ	Ō	ŏ	3
TOTAL	1	1	2	7	1	4	8	7	4	4	2	1	0	0	42

^{*} Numbers include biochemical and morphological identification.

TABLE 47 --- Concluded Subject '33 through 36 - EXPERIMENT IX**

						Sam	pling	Per	iod				
Anaerobes	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
FA-1	0	1	0	0	0	0	0	0	0	0	2	0	3
FA-2	0	0	0	2	0	0	ô	0	0	0	0	0	2
FA-3	3	_1_	_1	3	2	0	0	_1_	l i	.0.	0	0	12
FA-4	2	0	0	0	0	0	0	0	0	3	0	6	5
FA-5	0	0	0	0	0	2	0	0	0	0	0	0	2
FA-6	0	0	0_	0	0	0	2	0	0	0	_ 0	0	2 2
FA-7	4	4	0	0	0	0	0	0	3	0	0	0	11
FA-8	1	0	0	0	0	1	0	0	0	0	2	1	5
FA-9	0	0	5_	0	1	2	1	1	2	0	_1	0	13
FA-10	0	0	0	0	2	0	0	0	0	0	0	0	2
FA-11	0	0	0	1	1	1	0	0	0	0	0	0	3
FA-12	3	_1_	2_	_1	2	_1_	8	3	6	5_	6_	1_	39
FA-13	0	0	0	0	0	0	0	0	0	0	0	0	0
FA-14	1	1	0	1	0	0	0	0	0	0	1	0	4
FA-15 FA-16	Ď.	<u> </u>	<u> </u>	_	1-1-	0_	_2_	1	2	0	0	3_	13
FA-16 FA-17	0	0	0	0	1	0	1	0	1	0	0	0	3
FA-17 FA-18	2	0	1	2	0	0	0	0	0	2	0	0	7
LW-10	0	1	n	0	0	Û	0	0	0	0	1	0	2
GD-1	1	2	1	0	0	1	0	2	0	4	0	6	17
GD-2	0	2	0	0	0	0	0	0	0	0	0	0	2
GD-3	0	0	0	0	2	0	0	0	0	0	1	0	3
GD-4	0_	0	0	_0_	0	0	0	1	0	0_	0	0	11
GD-5	1	1*	0	0	1	5	0	0	0	0	0	3	11
GD-6	0	0	0	0	9	0	0	0	0	0	0	0	0
GD-7	0	0	0	0	0	0	0	2	1	0	0	0	3
Unkeyed	7	1	7	2	3	2	1	7	1	4	0	3	38
TCTAL	25	15	20	13	16	15	15	18	17	18	14	10	909
	==	10		<u> </u>	100		10	10	=	10	14	17	203
FN-1	0	0	0	0	0	0	3	9	0	0	0	0	3
FN-2	0	0	0	0	0	0	0	0	0	0	0	0	0
FN-3	0	0	0	0	0	0	0	0	0	0	0	0	0
FN-4	0	0	0	0	0	0	0	0	0	0	0	0	0
FN-5	0	0	0	0	0	0	U	0	4	0	0	0	4
Unkeyed	1	3	2	3	0	1	0	2	0	2	3	2	19
Lactobacillus	1	0	0	1	0	0	3	0	1	3	0	0	9
Enterococci	0	0	0	0	1	0	4	Ō	o	0	Õ	0	5
Miscellaneous	5	0	0	2	0	1	ō	5	0	0	3	0	16
TOTAL	7	3	2	6	1	2	10	7	5	5	6	2	56

^{*}GD-5A
** Numbers include biochemical and morphological identification.

TABLE 48. TOTAL DISTRIBUTION OF FECAL ANAEROBES BY EXPERIMENT

			·····	Experime	nt Number	
Anaerobes	V	VI	VII	vm *	IX *	TOTAL
FA-1	32	17	3	11	3	66
FA-2	9	0	0	4	2	15
FA-3	38	35	17	99	12	111
FA-4	2	0	1	0	5	8
FA-5	12	7	8	25	2	54
FA-6	22	8	5	3	2	40
FA-7	3	26	3	3	11	46
FA-8	12	17	6	3	5	43
FA-9	16	0	6	14	13	49
FA-10	4	2	27	2	2	37
FA-11	0	1	0	3	3	7
FA-12	_5	3	9	18	39	74
FA-13	5	0	0	3	0	8
FA-14	11	15	15	11	4	56
FA-15	42	50	22	79	13	206
FA-16	0	3	0	8	3	14
FA-17	2	10	29	14	7	53
FA-18	23	9	10	32	2	76
GD-1	0	0	0	5	17	22
GD-2	0	3	0	7	2 3	12
GD-3	4	0	14	2	3	23
GD-4	8	1	0	11	1	11
GD-5	0	0	1	1	11	13
GD-6	13	5	16	4	0	38
GD-7	4	0	1	4	3	12
Unkeyed	6	20	13	41	38	118
TOTAL	273	232	197	307	203	1212
FN-1	1	0	0	4	3	8
FN-2	7	3	1	Ō	Ö	11
FN-3	2	Ō	1	2	0	5
FN-4	11	3	4	5	0	23
FN-5	8	1	8	3	4	24
Unkeyed	4	3	8	23	19	57
Lactobacillus	4	0	0	1	9	14
Enterococci	5	1	0	1	5	12
Miscellaneous	0	0	0	3	16	19
TOTAL	42	11	22	42	56	173

^{*} Numbers include biochemical and morphological identification.

TABLE 49. DISTRIBUTION OF EIGHTEEN TYPE CULTURES IN THREE SEPARATE GROUPS AND TOTAL RANK ACCORDING TO TOTAL OCCURRENCE*

		Series		
Anaerobes	1	2	3	Total
FA-1	25	65	36	126
FA-15	29	54	33	116
FA-3	26	22	44	92
FA-5	22	4 8	5	75
FA-12	18	18	22	58
FA-6	19	18	20	57
FA-14	19	9	26	54
FA-8	18	12	13	43
FA-10	15	13	7	35
FA-18	3	13	18	34
FA-17	15	8	10	33
FA-2	12	9	5	26
FA-16	8	5	3	16
FA-11	8	2	1	11
FA-7	2	2	6	10
FA-9	2	3	5	10
FA-13	3	3	2	8
FA-4	6	1	0	7
TOTAL	250	305	256	811

^{*} Results obtained under NASA contract NASw-738, "Study of the Normal Fecal Bacterial Flora of Man."

B VITAMIN PRODUCTION OR USE BY THE TYPE CULTURES IN VITRO TABLE 50

£							 						_						
***************************************	Folic Acid m/u/cc	10.0	35.0	ŧ	e u	87.0	25.0	10.0		10.0		11.0 56.0		17.0	15, 5	10.0	10.0	25.0	7.7. 5
	Pantothenic Scid Al/cc	0.301	0.370	6	5.243	1,1683	0.301	0,301		0.0463		0.0231		0.359	0.208	0.301	0.0463	0.393	1,3073
	Miacin Ju/cc	3.40) H	: :	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15,30	2.74	3, 40		3.0		2,50		2, 65	2.45	3,40		2.65	14.15
	Riboflavin ,u/cc	0,096	0.096	6	0.088	0.462	0.84	0.096		0,099		0.114		0.000				0.093	
	Vitamine B ₁₂ m µ/cc	0,255	0, 288			1, 292	0.400	0,255	•	0,125		0.200		0.325				0.262	
	Predominating Type Culture	Exp. V FA-15	FA-1	FA-18**	FA-6	rA-y Total	Exp. VII FA-10	FA-15	FA-17**	FA-3	GD-6**	FA-14 Total	\$1. \.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\	FA-12	FA-9	FA-15	FA-3	FA-7	Total
100	Folic Acid m Al/cc	35.0	10.0	15.5	17.0	16.5	10.0	10.0	25.0	35.0	14.5	11.0 105.5		10.0	15.5	17.0		35.0	77.5
1	Pantothenic ScidAvcc	•	• •	•		1.4007	'	• -	• _•	_•	-	0.0231	***************************************	0.301	_•	0,359		0.37	_• I
NAME AND ASSESSED IN THE SECOND SECON	Niacin 59\u	3.1	3.0	3,2	2.65	3.35 18.70	3.40					2.50 18.25		3.40		2,65			12,35
ABLE OF	Riboflavin 50\u					0.093						0,114		0.096	0,102	0.090		0.096	0,384
	Vitamine B ₁₂ m/u/cc	Ö				0.262				_	_	0.200		0.255		0.325		0.288	1.130
	Predominating Type Culture	*NASw-738 FA-1	FA-15	FA-5	FA-12	FA-6 Total	Exp. VI	FA-3	FA-7	FA-1	FA-8	FA-14 Total		FA-15	FA-5	FA-12	FA-17**	FA-1	Total

* NASw-758, Study of the Normal Fecal Bacterial Flora of Man, Office of Space Sciences, NASA, Washington, D. C. ** Function unknown

TABLE 51. AMINO ACID DECARBOXYLASE SCREENING TESTS IN VITRO

Lysine	Hisddine	Tyrosine	Arginine	Predominating Type Culture	Lysine	Histidine	Tyrosine	Arginine
				Exp. VII				
+		+	+	FA-10	+	+	+	+
0		0	+	FA-15	0	0	0	+
+		+	+	FA-3	4	÷	+	.;.
0		0	ပ	GD-6**				
+		+	+	FA-14	÷	+	+	+
		 o	0	**°-00				
8		က	4	Total	တ	က	က	4
				Exp. VIII				
0	0		+	FA-15	0	0	0	+
+	+		+	FA-18**				
-	+		÷	FA-6	0	0	0	0
				FA-12	+	+	+	+
o 	<u> </u>		0	FA-17**				
+	+		+	FA-1	0	÷	+	+
3 3	င		4	Total	τ	2	2	တ
				Exp. IX				
	0		+	FA-12	+	+	+	+
+	+	-	+	FA-1**				
_	+		+	FA-0	+	+	+	+
	+		+	FA-15	0	0	0	+
	<i>*</i>		0	FA-3	+	+	+	+
+	+		+	FA-7	0	÷	+	÷
ឆ	<u></u>		ន	Total	က	7	4	വ

*"Study of the Normal Fecal Bacterial Flora of Man. NASw-738, Office of Space Sciences, NASA, Washington

TABLE 52. EFFECT OF PREDOMINATING FECAL ANAEROBES ON GERMFREE RATS*

Type Culture	3–Wk. Body Wt. Gain (gm)	Cecum as % of Body Wt.	Plasma Cholesterol mg/100 ml	Liver Cholesterol mg/100 g
Germfree	74	7.1	95	2, 52
FA-1	95	6.8	97	2.78
FA-9	8 G	6.2	124	3. 26
FA-13	9 8	5.6	99	2. 16
FA-15	91	5.1	158	2.64
Germfree	83	7.1	88	
Cecum organism	101	2.4	78	
FA-1, 9, 13, 15	83	6, 6	95	
FA-13 and L. acidophilus	77	6.1	73	
FA-13 and contaminant	87	7.3	71	
L. acidophilus	90	7.3	74	
Germfree	91	7.1	100	
FA-3	94	5.3	102	
FA-5	93	5.7	94	
FA-10	83	6.3	96	
L. acidophilus and L. bulgarius	88	6.3	101	
L. ATC 332	86	5.2	104	
Germfree	-	6.3		
Cecum organism	-	2.8	7000 1000 1000 1000 1000 1000 1000 1000	
FA-3	86	5.0	Table 1987 18	
GD-2	68	7.2	T-100	
GD-7	62	5.7		

^{*} Results obtained under NASA contract NASw-73°, "Study of the Normal Fecal Bacterial Flora of Man."

TABLE 53. SENSITIVITY OF EIGHTEEN ANAEROBIC TYPE CULTURES TO VARIOUS ANTIBIOTICS*

*Results obtained under NASA contract NASw-738, "Study of the Normal Fecal Bacterial Flora of Man." Gall's agar without cysteine Blood agar plate

no growth Sensitive Not sensitive

TABLE 53 --- Concluded

Anaerobic Anaerobic FA-11 GA						Antibiotics	tics			
H. H. H. H. H. H. H. H. H. H. H. H. H. H								nromycin mcg.		ockojine wek•
GAA +	Anaerobic ype Culture							Eryth		
GA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FA-11	GA	-}-	+	+	+	+	+	+	+
GA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		ВР	ı	1	i	ı	i	ı	ı	î
GA GA CA CA CA CA CA CA CA CA CA CA CA CA CA	FA-12	GA	0	0	0	0	0	0	0	0
GA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		ВР	1	1	1	1	ı	ı	•	1
GA + + + + + + + + + + + + + + + + + + +	FA-13	GA	0	0	0	0	0	0	0	0
GA + + + + + + + + + + + + + + + + + + +		ВР	i	ı	1	ı	ı	ı	ı	ı
GA + + + + + + + + + + + + + + + + + + +	FA-14	GA	+	ı	+	+	1	+	1	4- 1
GA + + + + + + + + + + + + + + + + + + +		BP	+	+	-#	+	#1	+	-11	<u>+</u>
BP + + + + + + + + + + + + + + + + + + +	FA-15	GA	+	,	+	+	1	+	+	+
GA + + + + + + + + + + + + + + + + + + +		ВР	ı	#1	+	+	1	+	+	+
+ + + + + + +	FA-16	GA	+	-#	÷	+	-11	+• •	+ -	+ -
		ВР	+	-11	+	+	-1 1	+	+	÷

GA = Gall's agar without cysteine
BP = Blood agar plate
0 = no growth
+ = Sensitive
- = Not sensitive

TABLE 54. ANAEROBIC MICROBIAL PROFILE OF SUBJECTS

	Foces	Anal fold	Glans penis	Oroln	Axilla	Throat	Mosth	Nose	Eye	Body Area	
strep * streptococcus V or Veill * veilionella unk * unkeyed Unident, * unidentified	FA1, 3, 5, 5, FA3 g, 9, 10, 15, 2 g, 10, 15, 2 g, 10, 18, 2 3, 4, 5, 18, 2 tac; 1 entero		FA1, FN1			PS2, PS1(2)	Strep. Velli.			-	
* streptococcus * veillonella * unkeyed * unidentified	1, 6, 7, 15	FA12, GD3, FA3		Uniden. fac.						2	
	FA3, 6 15; GD7					Unid. fac. An. Strep, PS1				3	
fac * facultative ob * obligate an * anaerobic	FA3,9,17,18 FA1,2,3,5, 1 9,15,19;GD 4,6; 1 u.k. ob; FN2					Strep, PS2, PS1, FA15				٠	
	FA1, 2, 3, 5, 9, 15, 14; GD 4, 6; 1 u.k. ob; FN2									5	
Lacto " Lac Clostr " Clos P " Pep	FA1, 3, 6, 9; FN4; Lucto.	Unid. ob. An.				PS1, Strep.				a	
Lactobacillus Clostridium Peptococcus	FA1,3,8,18					Strop, PS3, Vetil.				7	547
	FA1, 3. 6, 8,	Unid. ob. An, FA10		į		Unid, ob. An.				1 1	Sampling Pe
	FA1,3,6,8, 18;GD4,6									6	Period
	FA2,12,15, 18; GD6					Strep.				10	
	FA2.3.6.8. 0.14.18;GD3	FA3, FA14. FN3								11	
		Unid. ob. An FA18, FA17				PS2			Unid, ob.	12	
										13	
										14	
										16	
										ĭ	

TABLE 54 --- Continued

FN 6 Lacto. PSI, Strep Unid. fao. An. FA 10 FA1, 3, 6, 13; FN2, 4; 1 enteroco-cel V•Ш1. FA1. 3, 9, 1d FA1, 3, 13, GD6;FN4; 14, 15, 18; 1 Lucto; FN5 6uh)ect 16 FA2, 10, 18 FA3, 8.9: Strep, P82 FA1, 5, 14, FA3, 5, 6, 12, 15;1 unk. ob 15, 18; FA6, 15 FA3, 15; GD-6; 1 unk. ob. 1 unk. fac. PBI, PBG FA3, 4, 14, 16; FN5 281, P. PAL Glans penis Anal fold Thron Mosth Axilla Foces 200 Orola Ey.

TABLE 54 --- Continued

Unid. Ob. An. FA18, FA8 1.4010 PSI. Stree unid, fac. an. 7.5,12,14,15 7.72,5,5,7; 18; 004,6; Fratform. 7A5,5,6,10, FAI,6,18; FA-6 FA1.3. 6.16 FA3.3.8.14. 18:0071 LectoFN4 18.18:004 FA1.8.9.18, PS 1, Strep. FA16, FA3 FN 4, Unid, fac. An. P52 Strep. <u>.</u> Strep. P8.1 P82, P85 Clane penie Body Arm Anal told Throat Mouth Axilla a Series 7000 \$ \$ % . ,

NOTE: - FN2 cultured from forestm in sampling period 2. Veulonelle cultured from Umbillous in sampling period 2.

TABLE 54 --- Continued

		***************************************	***************************************			-	21	fampling Period	riod				***************************************			
Body Area	1	3	9	•	9	9	٠	•	a	01	11	12	13	14	18	16
Eye			Brep.													
NOG.									-							
Mouth	P31, P53	Rrep; PS														
Thr'st	Arep, PSI	Rrop		Strepi Lanto P82,	P82,	veill.					Brrep. unident. fac. An.	Brep.				
Axilla																
Orota																
Olans penis			Veill.	Rrep.												
Anal fold				7A17, FA13		FA3,	FA17, FA13			FA-16		_				
Feces	743, 4, 14, 16 FN 81	F43, 4, 14, FA 1,5, 15 16 FN 5; 18; GD6; 1 unk, ob		FA 1, 3, 7 [FA 6, 9, 14, FA 3, 5, 12, FA 2, 6, 6, FA 1, 2, 3, FA 1, 3, 9, 16; 15; 18; 18; 19; 0D6 GP3; FN1; 16; 18; 18; 18; 18; 18; 18; 18; 18; 18; 18	FA 3, 5, 12, 15, 18; OD6	TA 2, 8, 8;	FA 1, 2, 3, 6, 9, 15; GP5; FN1; 15nterococol	FA 1, 3, 9, 16;	FA 1, 3, FA 1, 3, 6, 13, 14, 16, 13, 14; FN2; GD6; FN 4,	7, 1, 3, 6, 13, 14; FN2;						

NOTE: P83 leolated in the umbilicus in earnpling period 4.

Bubject 21

FA 8. 15 FAF, 15 2 unk. ob. FA1. 5, 4, 14, 16 FA3.6.13 FA6.17,18; FA1.6.14, FA6.14, 1 unk. ob. 1 unk. ob. 15,18 16, FM Lacto. Brey. PSI 1 unk. ob. FA14, 17, 18; GD4 PBI Strep. FA3, 11, 14, 16, 17; 1 unk. ob. P82 283 FA14, 18. 16: FN2 P.83 ě. FN. 4. Clostr. 282 Olans penis Anal fold Throat Mouth Orola Axilla 7000 * 8 Z E.y.

TABLE 54 --- Continued

FA 7, 6, 12 FA 7; 15; Lacto PA 7; 1 unk. ob; FA 5, 8, 14, 16; 1 unk, ob, Cloe. 2 unid. An 1 unk. ob. 1 unk. ob! 2 Sampling Period Vetil. Vaill. krap. V, P81 7 18; db6 77, 16; Lacto. PBI, Veill. Brep. V•III. Olans pents Body Area Anal fold Throat Z'orth Axilla Orota * 80 X

TABLE 54 --- Continued

2 3 4 6 0			Strep, PE2	V. Strep. Strep. Strep. I V.					PA3, 15 PA3, 16 PA1, 3, 14 PA6, 14; PA 3, 6 PA1, 6, 14,
9 1 4 1									7A1, 3, 14 7A6, 14; 7A 3, 6
									FA6, 14; FA 3, 6
			Pita	Btrep. I V.					i
								_	741.6.14.
L		<u> </u>					1	1	
			PB1						FA6, 14, 16
									FA6, 14, 15 FA3, 16.
3				Lecto. Unid, Rod			Unid, An, ebeel		'A 14, 18,
or									FA 3, 10, FA1, 3, 16
									├
21			78 2						FA1, 5, 6
51									FA3, 16
**							Lacte		
18							Unid. An. socei		
16									
	9 6 10 11 12 13 14 15	9 6 10 11 12 13 14 15	9	7 0 0 11 12 13 14 16	7 6 9 9 10 11 12 13 14 16 Lacto. Unid: Rod	7 6 W 10 11 12 13 14 16 Lacto. Unid. Rod	7 6 U 10 11 12 13 14 16 Lecto. Unid. Rod	7 9 9 10 11 12 13 14 16 Lacto, Unid, An. Special Speci	7 6 9 9 10 11 12 13 14 16 Lacto. Unid. Red Unid. An. Cocci (10 14 CM) Cocc

TABLE 54 --- Continued

8 ub) ect 24

7. 2 FA3, 7, GD 6 No semple FA2.7.10 FA7,18 threp. No eample FA 7, 15 Campling Period Vi Unid. 7.41, 3, 6, 17, 00 6 7A1,3,0D6 1 unk. ob. ¥A 1.5.4 Strep. 1 4 3, 14; 1 unk ob. ide. 443.6.18. 2 FA3,1 FA18, 18 44.3 Olans penis Anal fold Throat Month Autila Orola *** X OB O E y

infiltere 25

	-	samed teasons in constant density	Interpretation interpretation	de press of heartesteen	Administration (1986) in the state of the st	-	A K	Mamphas Declar	101	-	e, present transfer	***************************************	***************************************	***************************************	reside and interpretable plants	-
Budy Area	- I	T II D: HEADWARD STONE	3 community of the Comm					in families of Albertage	0	13	11	1 71	13	11	10	1,4
KAR	Unkl. Pas. An:	Unul. Fac		Until, Anner, Corel Unid, Coreobae							2					
NOS .	Primarana				Mepterteran											1
Noah	LACIO,	Lauto. Hibaerophume		Latio. Veillonelia	Peptoatten. Mercus Jacker Vettlen-fing? VAA", VAE.		Veillimella(3)	Çırg.								
Thrond					Veillonella Renformia Pepticoccus Aerogenes					14						THE PERSON NAMED AND THE PERSO
Axilla									111111111111111111111111111111111111111	1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	31-14 P1-14	and desired as you want to				21 T#4444
Oroth													- 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	***************************************	HECHELINESTICS AND	NY NAT BE PERSONS AND A PERSON
Cinne penia										100000000000000000000000000000000000000	***************************************	Unti).	H 182 Mari 18 182 Mari 18 182 Mari 18 182 Mari 18 182 Mari 18 18 18 18 18 18 18 18 18 18 18 18 18			1100
Anal fold	Unid,															
Yeven	(104)	FAK, 10, 15, 18,000, 6	FA6, 17 ₁	FAS, 131 PA15; (373 FA10, 16, 17,	FA10, 10, 17,	FAB,10,14	YAB, 10,14 YAB, 10,18;	FAS,17,1%; (1)X3; 6;	FA6, 181 (113, 6; •2 unh. eb;	244, 10; 1 unk, ob;	FA3,7,14,10;	7.XI0, 151	Y.R.21	Ll'al'al'EV.		

· Mitellin colonies mand curved root and diplocureus

TABLE 54 --- Continued

TABLE 84 --- Contained Subject 84

	ę.				Tveotract. Veetum					
	18									
	71				Vellionella					753,10,121 0D3;
	2				Lacto,					
	2			£						iraiouzusu Oddi
	-1		110000000000000000000000000000000000000	Tuenbanierfur Polymorphum	F E					10031, 773,10,12,15,174,10,12,43,1,177,13,13,13,13,13,13,13,13,13,13,13,13,13,
	9				Fusobacterium Vescum Fusobacterium Suotsetum					FA4,10,17, OD3, 1 with obj
per tod	•									FA10103041 1 white obt
Bempling P.	-							Velilonella		FA10,003, I whi, fact
#	-				Vellionella					
	•			Ea						PAB,8,10,141 1 unk, obj
	8			Fusobacierium Polymorphur			-			FA16, 12, UD31
	7				Velilonella					YA#, 12i
	,			F						FA4, 12; 0004; 1 unk. ob;
	3			Puestante riun Suclestum	Vetitorella(2)					i
	1		Peptoxodeus Anseroblus						Peptodota Ameroblua	i unk.obi
V	Body Area	# A	NCER	Mosh	Thront	Autila	Orota	Glans pents	Anal fold	Years

Fac 14,17, 7.48,1 1,14; GD4; Veillonella 1 unk, fant FA 5, 17; 1414 PAINODA Bub)ect 27 7A 14, FA121FN4, P 1 wik, ob. 4 usk, chi Niger FA3[0134] FR 4, 81 Vettlenette Veillonella TA10.18 18 4. E. Peptrocetore Annershive Vellimetia 7.46, 9, 10, 7.88, Clane penie Anal fold Thread A48314 Koz Orela ¥. * *

HOTE: . Velleralla Randorinta oubured from umbilique la sampling period 1.

TABLE 54 --- Continued

2 Unident. Strey. 2 FA14,16,14 FA14,15,18; FA4,7,14,16; FA1,3,8,17; FAS, 14; GD3; Polymorphum (2) FA1; 1 unk. ob; Sampling Period 3D6; 1 unk. ob; Subject 28 FA3,5,8,18; FA3,15; Vetilonolla 7.76.34; 7.78; 3.4; Pusobactertum?usobact. PolymorphumPolymorphum Veillonella Veillonella FAS, 4, 7, 18; FH 4; FAS, 8,14,17; FA6, 16; Olase penis Anal fold Throat 4 Actila Orota

TABLE 54 --- Continued

				***************************************			100	Bampling Period	Flod							
Boty Arm	1	_	•	-	2	=	-		•	10	11	13	13	×	18	91
Į.																
Í				Veillonella Veillonella;	Veillonella; FN3		Vellocella S. faccalla									
Three and the second																
Astilia																
Grota																
Glass penis Veitlonella	Veillonella		Pepipococus										ras			
Anal fold									-							
Foot	7,75,7,4,10, 16,17,16; 1 unk. ob. 1 unk. Mo.	7A5.7.4.78; 10,11.3.2.8.9 [A.1.3]; 16,17.31; 10,11.3.2.16; 10.23,4; 1 und. ob. 1 und. ob. 1 und. ob. 1 und. ob. 1 und. ob. 1 und. ob.	T	7.45, 171 OD3, 6; 1 unk, fac.		FA12,16,17;	PAIN, 14; FAIR, 15; 174, 18, 14, 14, 15; 17; 18; 18; 18; 18; 18; 18; 18; 18; 18; 18	FA 15; 2 unk, ob. 2 unk, fac. 1 Esterocool	FAG,16, FAI, 9, 11, 18; 18; 17, 18; 17, 18; 19 2; 1 unk, fbo.	7A1, 9, 11. 17, 18; 1 unk. fbc.	FA3,6,13,17; FA6; 1 OD 5A 1 unk. fac. 1 unk.		; o V	7A 6; 20 5A 1 talk, ob.		

Possible Clostrictum

TABLE 54 --- Continued

Subject 31.

28 13 FA12,15,17, 18; 1 unk. ob(2) FA2,12,16, 16,16; UD 2; 2 FA14,15,16; F CD 7; 1 unk. 00(2) FA10.15,15; FA15,15; FA114,15,15[FA15,15]; FA15,15; FA15,5,5,9,15,FA14,15,16; FA15,1 > Bampling Period Unitd. Fac. (1) PS 2 (2) Peptestreptococcus Lanceblatus (3) An.vibrio (4) Peptococci Sphaero-phorous varius FA16, 17; 1 unk. ob. Body Area Olans penis Anal fold Thront Koath Astilla Orota ž.

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TABLE 54 --- Continued

		******					8.	sd Ballams	Pariod							
Rody Area	7	2	3	*	9	•	٠		•	οž	=	ន	£13	7.	91	91
Eya									-							
NOS.													_			
Kor					۷. (2)		٧. (٤)	۸,							Brrep. (fing An.) V.	V. Unid. As Strep.
Thron									,	۷،(2)						
Arilla																
Grota																
Class penis	>															
Assal fold																
780	7.49, 16; GD 1, 6;	FA9, 34, 15, 17; OD4; 2 unk, ob.		FA9, 25,001 FA9,13,16; 1 mk, ob. FN 8;	FA7,12,14,16, FA1,6,12,16, FA6,7,16, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	FA1,6,12,16, 16; 1 unk. ob(1) FN 4	FA6, 7, 18, 17, 18; 1 unk. cb(2) 1 unk. fac.	FA3.12,16,16 FA1.9,16; FA3.12,16,18; FA3.13,18; 16; GD 2,4; 18; GD 2,4; 18; GD 2,4; 19; GD	FA1, 9, 16;	FA3,12,16, 18; 1 unk. ob.	FA12,16,18;	FA3,12,16; GD 2, 6;	FA6,6,16, 17,18;	FAJ, 3, 5, 18		

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***************************************	Anter (management) was de-	PARAMETER SERVICE SERVICES	***************************************				íon o		7.7.	***************************************						
Body Area	_	2	•	-	\$	•	-	O I	6	01		12	13	141	18	16
£y.																
Nues																
Olingwal	Contain, of Macillus Greup															
17 E																
Autila																
Grein																
Glans penie		Pephostrepto vecas Micros.														
Anal fold																
Part	FA3,4,12,17; 1 unk. fac. Lacto Miscell. (3)	PA3,4,12,171 (fi)1, 2, GD8A, FA91 1 unk. fsc. Lacto Miscell. (3)		FA2,12, 17; 1 Liketo	FA9, 11; trak, ob, 1 enterocec	FA 11; 3 unc. ob. (3)	1 une. ob. (3) 2 Enterococci	FA12(01)4; FA7, 12; 1 1 unk, ob(1) 1 unk, fac.	3	PA12, 1 unkert ob, 1 unker dan,	FA9, 12, 18; 3 unk fac	7.A8, 12, 18; FA 15; 3 unk fac 3 unk, ob 20				

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TABLE 54 --- Continued

Subject 34

GD; (A.1.9.12.15; F'13.9.12; FA12; GD1; FA12;GD1; UNA. 1ac. 16; 1 unk. 0b. (2) Lactobacill FA 12; Peptostrepto corcus Anacoblus FA9, 13; 60 1,3; 2 unk. ob(3) FA3, 15; GUS; | FACES | FAT, 8, 12; | FAL, 12; | FAB; | 2 us | (DD); | 2 unk, ob (a) J unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, cb (d) | 2 unk, Prevoiti Glans penis Body Area Anal fold Torost Axilla Mouth Oroth X089

TABLE 54 --- Continued

Subject 34

7.7 81 (10 1.81 3 unk. 03. GD 1, 7; 1 unk. ob. (4) Eubactorfum Sp. FA 6, 9; 1 unk. ob. FAU, 12, 163 PA B, F1 2 unk, cb, 1(1) GD 51 1 unk, lto FA 181 (3) Fuschauterlum Sp. (4) Pupplestreplococcun Sp. ~ ~ ~ 18.1 (1) Lautobacilincene Sp. (2) Peptecoccua Aerokonea FA3,7,12,14; tip 1; t ack, ob(2) Clans ponts Body Area Anal fold Cingival Threat Axilia Oroin Peces ... *x

TABLE 54 --- Concluded

Bublect 36

FA 7.14. FA 12.16. FAA11.14.						_	<u> </u>
140 174.71							
149 TA 23.161 FA							
139 TA 23							
130 TA 23							
149 FA 23.161 FA 23.164 FA		Pepto (1)					
TA 23 FA 2.14 FA 12.16 FA3.11.14							1111
FA 12, 16 FA 12, 16 FA 11, 16							
FA 7.14: FA 12.16: FA3.11.14:						_	
	#A3,11,141 FA 101 2 unk, ob(4) OD 31 3 unk, (Ac.	1 unk.ob. 17.12; 1 unk.ob (1) 17.1; 1 miscell.(7) FW 11 unk.o) (3) GD 7; 3 Lacto. 4 misce ¹ , (3) FW b ₁ 2 Enterococc	1 , FA 4, 17, 7, 3 LACIO. 5,	1'A 12,15; 3 mbecit (111 ak.(Ac.	12,16; k,fac,		

(1) Pepustreptococus Bp. (2) Pepustreptococus Productus (3) Misrodocascas

(4) Lactobacilli (5) PS 3 (6) Fusobacierium 5p.

TABLE 55. MORPHOLOGICAL TYPES OF ORGANISMS RECOVERED FROM THE ANAEROBIC SERIES

A.	Gram ± short rods in pairs short chains sometimes with coccoid swellings
B.	Gram ± short to medium slender rods singly and in pairs
C.	Gram ± large lanceolate cocci chains
D.	Grain ± large fat rods or cocci in pairs
E.	Gram ± medium pleo rods in pairs many forms, always shows pleomorphixm
G.	Gram ± pointed rods, longer than C, sometimes shows central swelling
I.	Gram ± elongated cocci pairs and chains strep
J.	Gram - short fat rods - coli
K.	Gram ± medium rods singly, pairs and rafts
L.	Gram ± long threadlike often irregular staining
M.	Gram ± long rods, thicker than L sometimes shows banded staining
N.	Gram + medium reg. rods (like C. welchii)
0.	Gram ± rods larger than A.
P.	Gram + micrococcus
Q.	Gram - medium rod pairs slightly curved
R.	Gram ± very large cocci pairs
s.	Gram - slender curve rod $\sim \sim \sim$
T.	Gram + very large fat rod
U.	Gram ± medium rods in pairs may be same as K.
v.	Gram - short fat rods in chains

TABLE 55 --- Concluded

BB.	Bacteroides
CC.	Cocco-bacillus in chains; usually pleomorphic
DD.	Disk-like cocci in chains
FF.	Fusobacterium
GG.	Neisseria
MM.	Medium gram variable cocci, paired, short chains and clusters
NN.	Neisseria-like cocci in chains

Lactobacillus

AA.

00.

PP.

- SS. Streptococci
- Streptobacillus moniliformis TT.

Anaerobic vibrios

VV. Veillonella

TABLE 56. DISTRIBUTION OF ORGANISMS ON SLIDES OF ANAEROBIC THROAT, MOUTH, GINGIVAL SERIES

ANAEROBIC THROAT SERIES

Sampling		S	ubject	
Period	17	18	19	20
1		VV, J, I, P	I	I, VV, G, P, TT
2	slides not avail- able	slides not avail- able	slides not avail- able	slides not avail— able
3	I, TT, G	I, J	G, GG, I, VV, J	ı, vv, gg, tt
4	G, TT, VV	G, I, TT, VV	I, TT, VV	I, VV
5	I	GG	GG, I, G, S	O, I, GG, L, G, VV, E
6	I, L	long pleomorphic rods, RR, L, I, G	I, G, TT, VV	G, I, VV
7	VV, I, L, J	I, L, S, VV	I, G, VV	I, L, VV
8	E, I, G, VV	Gram positive slender rod, I, VV, GG	I, G, L, VV	I, P, VV
9	I, L,J,G, VV	I, J, L, GG	VV, I,J,GG,G,L	I, L, G, J, VV
10	GG,I,J,VV,G,L	G, VV, I, GG, TT	G, VV, I, Vincents spirochetes	I,G,TT
11	I, G, L, VV	G, VV, I, GG, TT	G, I, Vincents	I, VV, GG
12	I, G, L, VV	G, I, VV, GG, TT	I, G, VV	ī, GG
13	I, VV, TT	I	I, VV, GG	I, VV, GG
14				

	25	26	27	28
5	I, VV, BB and/or FF	I, C, P, VV, FF and/or BB	I, BB, VV, GG, C	I, VV, FF, GG
6	I, VV, BB	I, FF, BB, P, VV, OO	I,BB,P,W,GG	I, GG, C, VV, BB and/or FF
7	I, VV, FF, P	I, FF, GG, VV, P	I, VV, C, GG, FF	I, VV, fusoform
8	I, FF, GG, VV			

TABLE 56 --- Continued

ANAEROBIC MOUTH SERIES

Sampling		Sul	oject	
Period	29	30	31	32
1	AA, BB, L, FF, pale crescents SS, PP, VV	AA, BB, CC, FF, PP, SS, VV, G, L	AA, BB, FF, L, SS, VV, PP	DD, L, MM, PP, SS, VV
2	AA, BB, L, SS, MM, PP, VV	AA, BB, CC, FF, L, PP, SS, VV,	BB, FF, L, SS, VV, pale cres- cents	BB, DD, FF, L, PP, SS, VV
3	BB, CC, L, PP, SS, VV	AA, BB, FF, L, PP, SS, VV	BB, L, SS, VV, pale crescents	BB, DD, FF, L, SS, VV
4	AA, BB, L, PP, SS, VV	BB, CC, L, PP, S5, VV, Pale crescents	BB, FF, MM, PP, SS, VV	BB, CC, DD, FF, L, MM, PP, SS,
5	CC, SS, unclear smear	AA, BB, FF, L, MM, PP, SS, VV	BB, L, SS, unclear slide	BB, L, SS, VV, unclear slide
6	CC, MM, SS, VV	no slide	VV, L, PP, SS, VV, G	BB, DD, FF, SS, MM, GG, G, RR
7	AA, BB, CC, L, MM, PP, VV,	AA, BB, DD, L, PP, SS, VV, GG	AA, BB, L, PP, SS, VV	BB, DD, L, PP, SS, VV, GG
8	AA, BB, CC, PP, L, SS, VV	AA, BB, SS, VV, L	BB, DD, PP, SS, L, VV	BB, L, PP, SS, VV, bi-polar reds
9	BB, L, PP, SS, VV	AA, BB, DD, FF, L, SS, VV	BB, DD, L, SS, VV	AA, CC, L, PP, SS, VV
10	BB, L, SS, VV	AA, L, MM, PP, SS, VV, GG	AA, BB, L, SS, VV	AA, BB, DD, L, SS, VV
11	L, SS, VV, fungus	VV, RR, branch- ing filaments with spores	L, SS, VV	AA, BB, FF, L, SS, VV
12	SS, VV	AA, L, SS, VV, GG	AA, FF, L, SS, VV, RR	FF, L, SS, VV
13	AA, BB, CC, FF, PP, VV	AA, FF, L, PP, SS, VV, GG, Sarcina	AA, SS, VV, med. bi-polar rods, GG	BB, CC, DD, FT, L, PP, SS, VV
14	GG, AA, BB, L, PP, SS, VV	AA, FF, L, SS, VV	L, SS, VV, unclear slide	CC, DD, FF, L, SS, VV

TABLE 56 --- Continued

ANAEROBIC MOUTH SERIES (cont'd)

Sampling		Su	bject	
Period	29	30	31	32
15	AA, FF, L, MM, NN, PP, SS, VV,	AA, CC, L, PP, SS, VV	AA, FF, L, PP, SS, VV	AA, BB, CC, DD, FF L, NN, SS, VV
16	BB, FF, L, PP, SS, VV	AA, BB, L, NN, PP, SS, VV, pale crescents	BB, DD, FF, L, NN, PP, SS, VV	AA, BB, DD, FF, L, PP, SS, VV

ANAEROBIC THROAT SERIES

1	BB, DD, L, MM, NN, VV, pale crescents	AA, BB, FF, L, MM, PP, SS, VV, pale crescents	AA, BB, FF, MM, L, PP, SS, VV, med. bi-polar rods	AA, BB, CC, DD, FF, L, MM, PP, SS, VV
2	AA, BB, DD, FF, L, NN, PP, SS, VV	AA, BB, CC, NN, L, PP, SS, VV, yeasts	AA, BB, DD, MM, L, PP, SS, VV, pale crescent	no slide
3	AA, BB, DD, MM, L, PP, SS, VV	AA, DD, SS, VV, L	BB, MM, PP, VV, L, SS	BB, DD, PP, SS, VV pale crescents
4	BB, CC, SS, VV, L med. thinrods in chains	AA, BB, MM, SS, L, VV, GG	AA, BB, MM, PP, L, SS, VV, med. bi-polar rods	BB, DD, PP, SS, VV pale crescent
5	BB, DD, FF, MM, L, PP, SS, VV	DD, PP, SS	AA, DD, MM, PP, SS, VV	BB, PP, SS, VV, med bi-polar rods
6	BB, MM, SS, VV, L	AA, BB, MM, PP, L, SS, VV	BB, L, MM,SS, VV	AA, BB, DD, MM, L, SS, VV
7	AA, BB, MM, L, SS	AA, MM, unclear smear	AA, BB, FF, MM, L, SS, VV	AA, PP, SS, unclear smear
8	BB, L, MM, PP, SS, VV	AA, BB, MM, PP, SS, VV	AA, L, MM, SS, VV	AA, BB, MM, L, PP, SS, VV
9	BB, DD, L, MM, VV	AA, BB, L, MM, PP, SS, VV, pale crescent	BB, L, MM, SS, VV	AA, DD, L, PP, SS, VV
10	BB, L, MM, PP, SS, VV	BB, FF, L, MM, PP, SS, VV	BB, L, MM, SS, med bi-polar rods	BB, LL, SS, VV

TABLE 56 --- Continued ANAEROBIC THROAT SERIES (cont'd)

Sampling		Su	bject	
Period	29	30	31	32
11	BB, FF, PP, L, SS, VV, GG, Sarcina	BB, L, SS, VV, RR,	AA, FF, L, SS, VV, RR, branching filaments	AA, FF, L, SS, VV, RR, GG
12	L, SS, VV	AA, FF, MM, SS, VV	AA, FF, L, MM, SS, VV	BB, FF, PP, SS, VV
13	AA,CC,PP,SS, VV,bi-polar rods	DD, SS, FF	AA, CC, L, MM, PP, SS, VV	AA, BB, CC, FF, L, VV, SS
14	BB, L, MM, SS, VV	AA, BB, CC, L, MM, SS, VV	BB, L, SS, VV	BB, L, MM, PP, SS, VV
15	BB, DD, FF, L, NN, SS, VV	AA, BB, L, SS, VV	AA, BB, CC, DD, L, MM, PP, SS, VV, GG	AA, BB, CC, DD, L, FF, MM, SS, NN, VV
16	AA, BB, L, PP, SS, VV	AA, BB, CC, L, NN, PP, SS, VV	AA, BB, DD, FF, L MM, PP, SS, VV	AA, BB, L, NN, PP, SS, VV

	33	34	35	36
1	GG, VV, P, C, I, E, BB, FF, B, A, sm curved gm neg rod		G, A	VV, FA1, B, S, L, FF E, I, V, A, BB, GG, med gm neg & gm pos sl bac sl curved gm pos sl branching filaments
2	VV, A, C, I, L, E, gm neg variable tiny curved bac, BB, K, GG, long chains ovoid cocci or sh bac	M, B, S, very tiny gm neg bac Haemophilus	VV, I, P, L, B, GG, OO, BB gm neg sl curved rcds, vibrio, A, G	VV, I, C, L, B, E, sm gm pos bac sl curved FF, A
3	VV, P, K, C, I, GG yeasts, FF, BB, L, V, E, sm vibrio	,	I, C, P,	gm pos sh bac ch, E, E,I,K,P,FA1,GG, BB,VV,L,OO
4			C, I, A, VV, FF, BB	

TABLE 56 --- Concluded

ANAEROBIC THROAT SERIES (cont'd)

Sampling Period	33	34	35	36
8	VV, P, K, GG, L, A, G, B, gm neg branching filament	BB, VV, O, P, I, E, U, L	GG, 1, C	I, VV, FF, GG
9	VV, C, I, GG, yeasts	VV,I,V,K,L,GG, BB	ĭ, K,	GG, VV, I, C,
10	GG, VV, I, C, P,			I, C, A, GG, G, M,

ANAEROBIC GINGIVAL SERIES

1		I, L, B, VV, BB, round cocci in med ch, FF, GG, E	VV, L, C, I, K, FA8, BB, A, FF OO vibrio forms	VV, I, C, GG, L, FF, pneumococci prs, spirillum
2	VV, I, C, P, FF long chain strep	C, I, P	I, C, VV, P, E, U, round cocci in med ch, V, L, OO corynebacteria pneumococci gm pos sl pleo branching bac	V, C, I
3	VV, C, GG, strep round med ch, I	M, VV, I, L, FA1, round cocci ch B, O, BB, prs pneumococci gm neg bac=Haemophilus	VV,C,I,FF,BB, GG	VV, GG, C, I, L, FF, OO, gram negative variable tiny bac sl curved, K
8	I, VV, BB	VV, FF, I, C, A, BB, GG, L, E, K, A, lg ch strep	VV,C,I,A,P,	I, C, P, A
9	GG, VV, I, V, C	VV, I, GG, D, A, BB	unclear slide	C, A, I, BB, VV
10	GG, C, I	GG, BB, FF		

TABLE 57. MICROORGANISMS COMMONLY FOUND ON HEALTHY HUMAN BODY SURFACES*(8)

20 cc 2 cc			Skin			Upper respiratory tract	Mo	Mouth	Lower intestine	Genitourinary tract
Gram-positive cocci: Coagulase-negative staphylococci Str. mitis and undifferentiated α and y streptococci Str. pyogenes (usually group A nearobic streptococci D. pneumoniae Oran-negative cocci: Gram-negative cocci: Gram-positive cocci: Coagulase-negative staphylococci ± Str. pyogenes (usually group A 0-4 0.3-2.5 0.1-5 12-68 ^f unless noted) D. pneumoniae Gram-negative cocci: W. catarrhalis and other spp. V. alcalescens		Species or group		යොන	3	səZes	प्र	revice	Feces	enitalia
Gram-positive cocci: Coagulase-negative staphylococci Coagulase-negative staphylococci 2-6/cm ² Coagulase-positive staphylococci 37-94 5-24 ξ 12-20 6-30 22-85 4-4-22d 37-94 Str. mitis and undifferentiated α and γ streptococci 3tr. pyogenese (usually group A 3-6/mlf Anaerobic streptococci 5-24 ξ 12-20 6-30 22-85 4-22d 4-22d 3-6/mlf Anaerobic streptococci b. pneumoniae Cram-negative cocci: N. catarrhalis and other spp. V. alcalescens V. alcalescens 100			General		Sonjunctiv	ssed lesen	Saliva-toot surfaces	o lavigaid	1lubA	External g
Coagulase-positive staphylococci $= 5-24 \ \xi = 12-20$ 0-30 $= 22-85 \ + = 1$ Anaerobic micrococci $= 2$ $= 2$ $= 2$ $= 2$ $= 2$ $= 2$ Anaerobic micrococci and γ streptococci and γ streptococci $= 2$	∢	_	88-100 2-6/cm ²		37-94	06	75-100 1-4/ml		+ 2-4/Gm	+
Anaerobic micrococci \pm + $+$ Str. mitis and undifferentiated α and γ streptococci such streptococci $+$ Str. pyogenes (usually group A $0-4$ $0.3-2.5$ $0.1-5$ $12-68^{f}$ Anaerobic streptococci $+++$ $0-5$ $0.1-5$ $12-68^{f}$ $-++$ $0-5$ $0.1-5$ $12-68^{f}$ $-++$ $0-5$ $0.1-5$ $12-68^{f}$ $-++$ $0-5$ $0.1-5$ $12-68^{f}$ $-++$ $0-5$ $0.1-5$ $12-68^{f}$ $-++$ $0-5$ $0.1-5$ $12-68^{f}$ $-++$ $0-5$ $0.1-5$ $12-68^{f}$ $-++$ $0-5$ $0.1-5$ $12-68^{f}$ $-++$ 100 100 100		Coagulase-positive staphylococci	5-24 €		0-30	22-85 9-100ª	+ (16-35)		‡	
Str. mittls and undifferentiated α and γ streptococci streptococci str. pyogeness (usually group A 0-4 0.3-2.5 0.1-5 12-68 f 3-6/mlf Anaerobic streptococci + 0-5 0.1-5 2.3 12 95-100 Gram-negative cocci: N. catarrhalis and other spp.		Anaerobic micrococci	+1				+			
Str. pyogenes (usually group A unless noted) 0-4 0.3-2.5 0.1-5 12-68f 3-6/mlf Anaerobic streptococci 4 0-5 0-17j 26 D. pneumoniae + 0-5 0-17j 26 Gram-negative cocci: N. catarrhalis and other spp. 2.3 12 95-100 V. alcalescens 2.3 12 5-7/ml		Str. mitis and undifferentiated $lpha$ and γ streptococci					4-22d		100 3-8/Gm	+
Anaerobic streptococci D. pneumoniae Gram-negative cocci: N. catarrhalis and other spp. V. alcalescens		Str. pyogenes (usually group A unless noted)	0-4		0.3-2.5		12-68 ^f	4-4 .	16h	
D. pneumoniae + 0-5 0-17j 26 Gram-negative cocci: N. catarrhalis and other spp. 2.3 12 95-100 V. alcalescens 100	- <u>-</u> -	Anaerobic streptococci					++ 9/mg	‡	+	+
Gram-negative cocci; N. catarrhalis and other spp. V. alcalescens		D. pneumoniae		+	0-2	0-17 ^j	26			
100	m				2.3	12	95-100 5-7/mJ	+		
		V. alcalescens					100	+		

Associated with nassl carriage Per cent of strains isolated Boldface values (e.g., 31-59) = range of incidence in per cent, rounded, in different surveys. Values given with units (e.g., 3-6/ml) = range of concentrations expressed as $\log 10.6 = 5 \times 15^{6} \times 10^{6}$.

In infants and children; highest in hospital nursery infauts Associated with presence in throat a 44 'O 44 44

More common below age 20 Groups B, C, F, and G; no A More common in children

TABLE 57 --- Continued

Genitourinary tract	हास्त्रिवंव३	External	Anagamana, anagamanana da da anagamanana pinanananananananananananananananananana	+		+				+	
Lower intestine	Feces	ЯГирА	409 77-	9		25-35 1-35				100 5-8/Gm	
Mouth	g:	ot-svils2 sostrus fsvignit	95k 0-6/m1	59		÷		++ ++ 0-3/m]	· +	65 0-3/rd	
Upper respiratory tract	seyges	sq IsasN		†	+	#1					
	£Vi	Conjunct		3-83						2,1	
Skin	A csusj	External suditor	***************************************	86						8-4	
ď		General		53 5/cm ²	45-100 6/cm ²	+					
	Species or Group		C. Gram-positive bacilli: Lactobacilli	Aerobic corynebacteria	C. aones	Mycobacteria Cl. perfringens, other spp. Cl. tetani	Actinomyces bifidus A. israelii	Leptotrichia buccalls	L. dentium	D. Aerobic Gram-negative bacilli; Undifferentiated "coliforms"	k Especially in dental caries

TABLE 57 --- Continued

Genitourinary tract	genitalia	External g							-}!							
Lower intestine	Feces	1IubA		100	33-68	5-53 -6/Gm	3-11	+ 4	Н	#1	#1					
Mouth	S	Saliva-too surface: Gingival c		4.2	52			4	H			25-100	22	Į-		
Upper respiratory tract	səges	Nasal pasi				. ==			+			12				
	12:1	Conjunctiv			0.1	4.0		-#1	-#	+!	+1	0.4-25			 	
Skin	csnal	External auditory			# • O +	0.2-1		1.1-1.6								
		General														
	Species or group		D. Aerobic Gram-negative bacilli (cont.)	Escherichia coli	'Intermediaten'' Klabsialla aerogenes	Proteus mirabilis, other spp.	Pseudomonas aeruginosa	Alcaligenes faecalis	Vibrio alcaligenes	Mima polymorpha	M. vaginicola	Haemophilus influenzae	H. parainfluenzae	Hemolytic hemophili	H. aegyptus H. vaotnalla	

Genitourinary tract	elitalia	g kerretx3	+	+	+	+	+ -	+ +		+	
Lower	Feces	tlubA	100%	-10/cin +	+	~ + +	88	14-31	0-4/Gm 1-12	+	
Mouth	S	Saliva-too surface: Gingival c	+	+ + + +	14-88 + 3-5/ml 4/mg		8809	6-49	0-5/ml 1-4	+	
Upper respiratory tract	səfes	Nssal pass		-		<u> </u>			<u> </u>		
	3	Conjunctiv									
	csnal	External auditory						+	+		
Skin		Teet						#	+	-	2-41
		General						#	1-16	1000	‡
			E. Anaerobic Gram-negative bacilli, vibrios, spirilla, and spirochetes; PPLO, etc.: Bacteroides fragilis, other spp.	B. nigrescens	Fusobacterium fusiforme	F. girans Spirillum sputigenum	Treponema dentium and Borrella refringens	F. Fungi:	Other candidas	Torulopsis glabrata Pityrosporum ovale	P. orbiculare Dermatophytes

q Especially scalp and nasal folds; also other skin areas.

TABLE 68. DISTRIBUTION OF MICRO-ORGANISMS IN VARIOUS CUTANEOUS HABITATS⁽⁸⁾

Habitat	Residents	Frequent visitors	Rare visitors
Surface of skin	Pediculus humanus Pityrosporum ovale Non-pigmented yeasts Staph. epidermidis Micrococcus spp. Corynebacterium spp. Mycobacterium smegmatis Treponema spp.	Pulex irritans Staph, aureus Gram negative bacilli Aerobic spore-formers	Aspergillus spp. Candida albicans Streptococcus spp. Neisseria spp.
Layers of stratum corneum	Staph, epidermidis Micrococcus spp. Corynebacterium spp.	Sarcoptes scabiei Dermatophytes Staph, aureus Strep, pyogenes	various mites Entamoeba histolytica Cladosporium wernecki Pityrosporum orbiculare Candida albicans Mycobacterium balnei B. Anthracis C. diphtheriae Pasteurella spp.
Malpighian layers of the epidermis	Herpesvirus hominis	Treponema pertenue papova virus VZ. virus	Larval helminths Mycobacterium spp. Treponema carateum Poxvirus variolae and other spp.
Pilosobaceous unit	Demodex folliculorum Pityrosporum ovale Corynebacterium acnes Aerobic corynebacteria	Trichophyton spp. Microsporum spp. Staph. aureus	Microsporum gypseum Piedra spp. Corynebacterium tenuis
Eccrine sweat gland		Staph, epidermidis Staph, aureus	Pasteurella pestis Chromogenic bacteria
Dermis	i	Leishmania spp. Mycobacterium leprae	Dracunculus medinensis Larval helminths Cladosporium spp. Nocardia spp. Mycobacterium spp.

Table 59. Distribution of indigenous microorganisms in $man^{(7)}$

Organism	Mouth	Oro- pharynx	Naso- pharynx	Intestine	Skin	Eye	E <u>xternal</u> Genitalia
α-streptococcus	1	1	tr	2	0	0	0
β -streptococcus	2	3	tr	2*	0	0	0
γ-streptococcus	2	2	tr	2	0	0	2
Anaerobic streptococcus	2	2	0	2	0	0	2
Pneumococcus	tr	3	tr	0	0	0	0
Staphylococcus epidermidis	tr	tr	3	2	1	2	2
Staphylococcus aureus	tr	tr	3	2	0	0	0
Other staphylococci	2	2	2	2	2	2	2
Corynebacterium †	1	1	1	0	1	1	2
Lactobacillus	2	0	0	2	0	0	0
Leptotrichia	1	0	0	0	0	0	0
Actinomyces	2	2	0	0	0	0	0
Bacteroides	2	0	0	1	0	0	0
Fusobacterium	1	0	0	2	0	0	2
Spirochetes	1	0	0	2	0	0	2
Anaerobic vibrios	1	0	0	0	0	0	0
Neisseria meningitidis	tr	3	3	0	0	0	0
Other neisseriae	tr	1	1	0	0	0	0
Veillonella 🌡	1	2	0	0	0	0	0
Haemophilus	tr	3	3	0	0	0	0
Pleuropneumonia group	2	2	0	G	0	0	2
Coliform bacteria	tr	0	0	1	tr	0	2
Proteus	0	0	0	2	0	0	2
Pseudomonas	0	0	0	2	0	0	2
Clostridium	0	U	0	2	0	0	0
Bacillus	tr	tr	tr	tr	tr	0	0
Mycobacterium	0	0	0	0	0	0	3
Yeasts	2	2	0	2	0	0	2
Protozoa	3	0	0	3	0	0	3

TABLE 59 --- Concluded

- 1 = Generally present and constitute a prominent fraction of the regional microbial flora.
- 2 = Generally present but constitute a minor fraction of the regional microbial flora.
- 3 = Carriers found frequently, in whom the organisms may constitute a prominent fraction of the regional microbial flora.
- tr = Often found, usually in small numbers, probably as a transient.
- 0 = If found, may be assumed to be a transient.
- * = Group D hemolytic enterococci.
- † = A very small proportion of the populace acts as the reservoir of diphtheria, owing to the persistence of C diphtheriae in the nasopharynx.
- ***** = Incompletely studied.

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13. ABSTRACT

The objective of this study was to collect, under controlled conditions simulating space travel, microbiological data from 13 body areas of 20 subjects and their specialized environment. These data were evaluated to establish biomedical criteria for personal hygiene and sanitation for aerospace missions, and to suggest possible indices of the deterioration of environmental conditions. Data derived in the study provided information on microbial dynamics, the effects of confinement stress on the microbiological populations of individuals, and information on bacterial levels in the closed environment. The study strengthened the evidence that, in general, man can go without bathing for 6 weeks without significant deterioration of the dermis. It pointed out the importance of sampling the groin and glans penis as "indicator" areas which quickly signal deterioration in hygienic standards. The specific buildup of both corynebacteria and micrococcaceae species in almost all sampled body sites was significant. Another objective of this program was to study the effects of the various space-type diets on the fecal flora of the subjects. The data revealed that although the obligately anaerobic character of the feces remained unchanged, the types of anaerobes recovered differed markedly from those found to be predominant in the "normal" population. The shift in the types of anaerobic bacteria is discussed from the viewpoints of vitamin produc-

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